PACIFIC SALMON COMMISSION JOINT
TRANSBOUNDARY TECHNICAL COMMITTEE

ESTIMATES OF TRANSBOUNDARY RIVER SALMON PRODUCTION, HARVEST AND ESCAPEMENT AND A REVIEW OF JOINT ENHANCEMENT ACTIVITIES IN 2009

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ACRONYMS

ADF&G	Alaska Department of Fish and Game
AF	Aboriginal Fishery
CAFN	Champagne Aishihik First Nation
CPUE	Catch per unit effort
CWT	Coded Wire Tag
DFO	Department of Fisheries and Oceans (Canada)
DIPAC	Douglas Island Pink and Chum (Private Hatchery)
ESSR	Excess Salmon to Spawning Requirement (surplus fishery license)
IHN	Infectious Hematopoietic Necrosis (a virus which infects sockeye salmon)
LCM	Latent Class Model
LRCF	Lower River Commercial Fishery
LRTF	Lower River test Fishery
MEF	Mid-Eye-Fork (fish length measurement)
POH	Post-Orbital-Hyperal (fish length measurement)
PSC	Pacific Salmon Commission
SMM	Stikine Management Model
SPA	Scale Pattern Analysis
TAC	Total Allowable Catch
TRTFN	Taku River Tlingit First Nation
TBR	Transboundary River
TTC	Transboundary Technical Committee
URCF	Upper River Commercial Fishery
YSC	Yukon Salmon Committee

CALENDAR OF STATISTICAL WEEKS

Statistical	Date			Date	
Week	Begin	End	Week	Begin	End
1	1-Jan	3-Jan	28	5-Jul	11-Jul
2	4-Jan	10-Jan	29	12-Jul	18-Jul
3	11-Jan	17-Jan	30	19-Jul	25-Jul
4	18-Jan	24-Jan	31	26-Jul	1-Aug
5	25-Jan	31-Jan	32	2-Aug	8-Aug
6	1-Feb	7-Feb	33	9-Aug	15-Aug
7	8-Feb	14-Feb	34	16-Aug	22-Aug
8	15-Feb	21-Feb	35	23-Aug	29-Aug
9	22-Feb	28-Feb	36	30-Aug	5-Sep
10	1-Mar	7-Mar	37	6-Sep	12-Sep
11	8-Mar	14-Mar	38	13-Sep	19-Sep
12	15-Mar	21-Mar	39	20-Sep	26-Sep
13	22-Mar	28-Mar	40	27-Sep	3-Oct
14	29-Mar	4-Apr	41	4-Oct	10-Oct
15	5-Apr	11-Apr	42	11-Oct	17-Oct
16	12-Apr	18-Apr	43	18-Oct	24-Oct
17	19-Apr	25-Apr	44	25-Oct	31-Oct
18	26-Apr	2-May	45	1-Nov	7-Nov
19	3-May	9-May	46	8-Nov	14-Nov
20	10-May	16-May	47	15-Nov	21-Nov
21	17-May	23-May	48	22-Nov	28-Nov
22	24-May	30-May	49	29-Nov	5-Dec
23	31-May	6-Jun	50	6-Dec	12-Dec
24	7-Jun	13-Jun	51	13-Dec	19-Dec
25	14-Jun	20-Jun	52	20-Dec	26-Dec
26	21-Jun	27-Jun	53	27-Dec	31-Dec
27	28-Jun	4-Jul			

EXECUTIVE SUMMARY

Preliminary estimates of harvests and escapements of Pacific salmon returning to the transboundary Stikine, Taku, and Alsek Rivers for 2009 are presented and compared with historical patterns. Average, unless stated differently, refers to the 1999–2008 average. Relevant information pertaining to the management of appropriate U.S. and Canadian fisheries is presented and the use of inseason management models is discussed. Preliminary results from transboundary river sockeye salmon *Oncorhynchus nerka* enhancement projects are also reviewed.

Stikine River

The 2009 Stikine River sockeye salmon terminal run estimate was 185,000 fish, of which approximately 125,000 fish were harvested in various fisheries including test fisheries. An estimated 60,000 Stikine River fish escaped to spawn, including 13,000 fish that migrated to the Tuya River block that were not harvested. The run and harvest were below average. The Tahltan Lake sockeye salmon escapement of 30,000 was on the upper end of the escapement goal range (18,000 to 30,000 fish). The estimated U.S. commercial harvest of Stikine River sockeye salmon in Districts 106 and 108, including the Stikine River subsistence fishery, was 74,000 fish. The Canadian inriver commercial harvest was 42,000 and aboriginal fishery harvest was 5,000 fish. The inriver test fishery harvested 1,300 sockeye salmon and there was no marine test fishery for sockeye salmon in 2009. Weekly inseason run projections from the Stikine Management Model (SMM) ranged from 176,000 to 234,000 sockeye salmon; the final inseason model prediction was 182,000 fish, with a total allowable catch (TAC) of 118,000 fish. Weekly inseason run projections using other methods ranged from 132,000 to 182,000 sockeye salmon. The final inseason run size based on other methods was 161,000 with a TAC of 95,000 fish. Based on the postseason run size estimates (185,000) and TAC calculations of 59,000 Stikine River fish for each country, Canada harvested 79% and the U.S. harvested 124% of their respective TACs. Broodstock collection removed 3,000 sockeye salmon and otolith sampling removed 350 sockeye salmon from the escapement to Tahltan Lake leaving a spawning escapement of 27,300 fish. The estimated spawning escapement of 17,200 mainstem Stikine River sockeye salmon was below the goal range of 20,000 to 40,000 fish for this stock group.

The 2009 Stikine River Chinook salmon (non large salmon) terminal run estimate was 16,000 fish, of which approximately 3,700 fish were harvested in various fisheries. An estimated 12,800 Stikine River fish escaped to spawn, below the escapement goal range of 14,000 to 28,000 large Chinook. The run and harvest were below their respective averages. The Little Tahltan River large Chinook salmon escapement of 2,245 fish was below the escapement goal range of 2,700 to 5,300 Chinook. The estimated U.S. commercial harvest of Stikine River Chinook salmon in Districts 108 gillnet, test, troll, subsistence, and sport fisheries was 1,300 fish. The estimated Canadian commercial, aboriginal, test, and sport fisheries harvest was 2,3 00 fish. There was no inriver test fishery for Chinook salmon in 2009; however, 31 large Chinook salmon were harvested in inriver sockeye test fisheries. Managers used the m-r, model, and other assessment estimates to generate inseason run sizes after week 23. The inseason run projections were persistent throughout the course of the fishery in predicting a terminal run size that was less than the preseason forecast of 32,000 fish. Weekly inseason run projections ranged from 19,900 to 25,700 Chinook salmon. The postseason estimate run size estimate of 15,000 large Chinook salmon indicated zero TAC.

The 2009 run size of Stikine River coho salmon cannot be quantified. The U.S. marine harvest of Stikine River coho salmon is also unknown since there is no stock identification program for this species. The estimated mixed stock coho salmon harvest in Districts 106 was 145,000 fish (51% AK hatchery) and in District 108 the estimated harvest was 31,000 fish (28% AK hatchery); both districts were near average. The Canadian inriver coho salmon harvest of 6,000 fish was above average. The aerial survey count of 2,700 fish from six index sites combined was below average. The cumulative CPUE observed in the coho test fishery was also below average.

Taku River

The postseason estimate of the 2009 Taku River terminal sockeye salmon run was 119,000 fish, including an estimated U.S. harvest of 36,000 fish and an estimated above-border spawning escapement of 72,000 sockeye salmon. The terminal run size was below average and the escapement was near the lower bound of the goal range of 71,000 to 80,000 fish. An estimated 35,000 Taku River sockeye salmon were harvested in the District 111 commercial fishery which was below average and an additional 1,000 were harvested in the U.S. inriver personal use fishery. Canadian inriver commercial fishery harvested 11,000 sockeye salmon and aboriginal fishery harvested 100 sockeye salmon; both were below average. The U.S. harvested an estimated 102% of their respective TAC and Canada harvested an estimated 125% of the their respective TAC.

The harvest of large Chinook salmon in the Canadian commercial fishery in the Taku River was 6,800 fish. The Canadian aboriginal fishery in the Taku River harvested 200 large Chinook salmon. District 111 mixed stock gillnet fishery harvest of 5,700 large Chinook salmon was above average. Postseason genetic stock analysis estimated 5,300 to be Taku River Chinook salmon. Approximately 7% of the total harvest was estimated to be of Alaska hatchery origin. The postseason above border spawning escapement estimated from the mark-recapture program is 30,900 fish.

The estimated above border run of Taku River coho salmon in 2009 was 114,000 fish, which was average. The Canadian inriver commercial and test fishery harvest of 10,000 coho salmon was above average. After upriver Canadian harvests were subtracted from the inriver run, the above-border-spawning escapement estimate was 104,000 coho salmon, which exceeds the minimum escapement goal of 38,000 fish. The U.S. harvest of 36,000 wild coho salmon in the District 111 mixed stock fishery was above average. Alaskan hatcheries contributed an estimated 33 fish or 0.1% of the District 111 harvest.

The harvest of 57,000 pink salmon in District 111 was below average. No pink salmon were reported retained in the Canadian commercial inriver fishery in 2009. The escapement of pink salmon to the Taku River as evidenced by the fish wheel catch and release of 9,225 fish was below the odd year average.

The harvest of chum salmon in the District 111 fishery was 918,000 fish; composed of 915,000 summer run fish (prior to mid-August) and 3,000 fall run fish. The harvest of summer chum salmon, primarily Alaskan hatchery stocks, is the highest on record. The harvest of fall chum salmon, composed of wild Taku River and Port Snettisham stocks, was below average. There was non-retention of chum salmon in the Canadian inriver fishery and there was no reported harvest in 2009. Although spawning escapement is not known, the Canyon Island fish wheel catch of 236 chum salmon was below average.

Alsek River

The Alsek River sockeye salmon harvest of 13,000 fish in the U.S. commercial fishery was below average. The Canadian inriver harvest was 130 sockeye salmon for Klukshu River and 700 total aboriginal harvest with no harvest reported for Village Creek. The Klukshu River weir count of 5,700 sockeye salmon was below the goal range of 7,500 to 15,000 fish. The count of 1,200 early run sockeye salmon (count through August 15) and the late run count of 4,500 were also below average.

The Chinook salmon run to the Alsek River appeared to be average. The U.S. Dry Bay harvest of 600 large Chinook salmon was above average. The Canadian recreational fishery harvest of 20 fish was below average and the aboriginal fishery harvest of 105 was above average. The 1,600 Chinook salmon counted through the Klukshu River weir was above average and within the goal range of 1,100 to 2,300 Chinook salmon.

Current stock assessment programs prevent an accurate comparison of the Alsek River coho salmon run with historical runs. The U.S. Dry Bay harvest of 3,500 coho salmon was above average while the Canadian inriver aboriginal fishery harvest of 3 fish was below average. The operation of the Klukshu weir does not provide a complete enumeration of coho salmon into this system since it is removed before the run is over; however, it does provide an annual index. The count of 400 coho salmon is below average.

Enhancement

Eggs and milt were collected from the year 2009 sockeye salmon escapements at Tahltan, Tatsamenie and Little Trapper lakes. A total of 4.5 million eggs were collected at Tahltan Lake, 1.2 million at Tatsamenie Lake and 150 thousand at Trapper Lake (the Trapper eggs will be planted in Tunjony Creek).

Outplants of 2008 brood-year sockeye salmon fry in May and June 2009 included, 1.4 million fry into Tahltan Lake, 832 thousand fry into Tuya Lake, 3.8 million fry into Tatsamenie Lake. Green-egg to planted-fry survivals were 58%, 84%, and 89% for the Tahltan, Tuya, and Tatsamenie, respectively. There were also 140,000 green eggs planted in Tunjony Creek in September of 2008 at Big Trapper Lake.

The egg incubation and thermal-marking program was continued at Snettisham Hatchery in 2008. Snettisham hatchery is operated by DIPAC (Douglas Island Pink and Chum, Inc.), a private aquaculture organization in Juneau. A co-operative agreement between ADFG and DIPAC provides for Snettisham hatchery to serve the needs of the joint TBR enhancement projects.

Adult sockeye salmon otoliths were processed inseason by the ADFG otolith lab to estimate the weekly contribution of fish from US/Canada TBR fry planting programs to the District 106, 108, and 111 gillnet fisheries and to Canadian commercial fisheries in the Stikine and Taku Rivers. Estimated contribution enhanced fish to Alaskan harvest were 29,000 planted Stikine River fish to District 106 and 108, and 250 planted Taku River fish to District 111. Preliminary estimates of contributions to Canadian fisheries included 20,000 enhanced fish to Stikine River fisheries and 100 enhanced fish to the Taku River fisheries.

INTRODUCTION

This report presents final estimates of the 2009 harvest and escapement data for Pacific salmon runs to the transboundary Stikine, Taku, and Alsek rivers and discusses management actions taken during the season. Harvest and effort data are presented by management week (U.S. week), hereafter referred to as week, for each river for both U.S. and Canadian fisheries. Spawning escapement data for most species are reported from weir counts or other escapement monitoring techniques. Joint enhancement activities on the Stikine and Taku Rivers are also summarized.

The Transboundary Technical Committee (TTC) met prior to the season to update joint management, stock assessment and enhancement plans and determine preseason forecasts and outlooks for run strengths and initial total allowable catch TAC estimates for the various species and rivers. The results of this meeting are summarized in: Pacific Salmon Commission Transboundary Technical Committee, *Salmon Management and Enhancement Plans for the Stikine, Taku and Alsek Rivers, 2009. April 2009.*

Run reconstruction analyses are conducted for the purpose of evaluating stocks and the fisheries managed. Run reconstruction analysis is conducted on Chinook salmon *O. tshawytscha* runs on the Stikine and Taku rivers, sockeye salmon *Oncorhynchus nerka* runs on the Stikine and Taku rivers, and coho salmon *O. kisutch* runs on the Taku River. No estimates of marine harvest are made for Alaskan fisheries outside of District 106 and 108 for Stikine River stocks, District 111 for Taku River stocks and Sub-district 182-30 & 31 for Alsek River stocks.

STIKINE RIVER

Stikine River salmon are harvested by U.S. and Canadian fisheries (Figure 1). In the U.S, they are harvest in commercial gillnet fisheries in Alaskan Districts 106 and 108, a subsistence fishery on the Stikine River, and an unknown quantity are taken in U.S. troll and seine fisheries and in sport fisheries near Wrangell and Petersburg. In Canada, commercial gillnet and test fisheries located in the lower and upper Stikine River, and by a Canadian aboriginal fishery in the upper portion of the river. In addition, Canadian terminal area fisheries are operated in the lower Tuya River and/or at Tahltan Lake when escapements are estimated to include excess salmon to spawning requirements (ESSR). A recreational fishery also exists in the Canadian sections of the Stikine River drainage.

Changes have taken place in the U.S. fisheries. The United States personal use fishery was established 1995 in the lower Stikine River; no harvest were reported in this fishery in 1995 through 2000, approximately 30 sockeye salmon were harvested in 2001, and the personal use fishery on the Stikine River was not open in 2002 and 2003. A subsistence fishery was opened in 2004 that is still active. In 1996, the spring experimental troll area in the District 110 portion of Frederick Sound was expanded to target hatchery Chinook salmon; four previous areas were combined into one large area that also included previously unopened waters. This area has remained unchanged since the 1996 season. In 1993, the spring experimental troll fishery near Wrangell was expanded to include two new areas in portions of District 106 and 108 to target hatchery Chinook salmon. In 1998 an additional area was included in a portion of District 108. The three areas in District 108 and one area in District 6 have remained unchanged have opened in the absence of District 108 directed Stikine River Chinook fisheries.

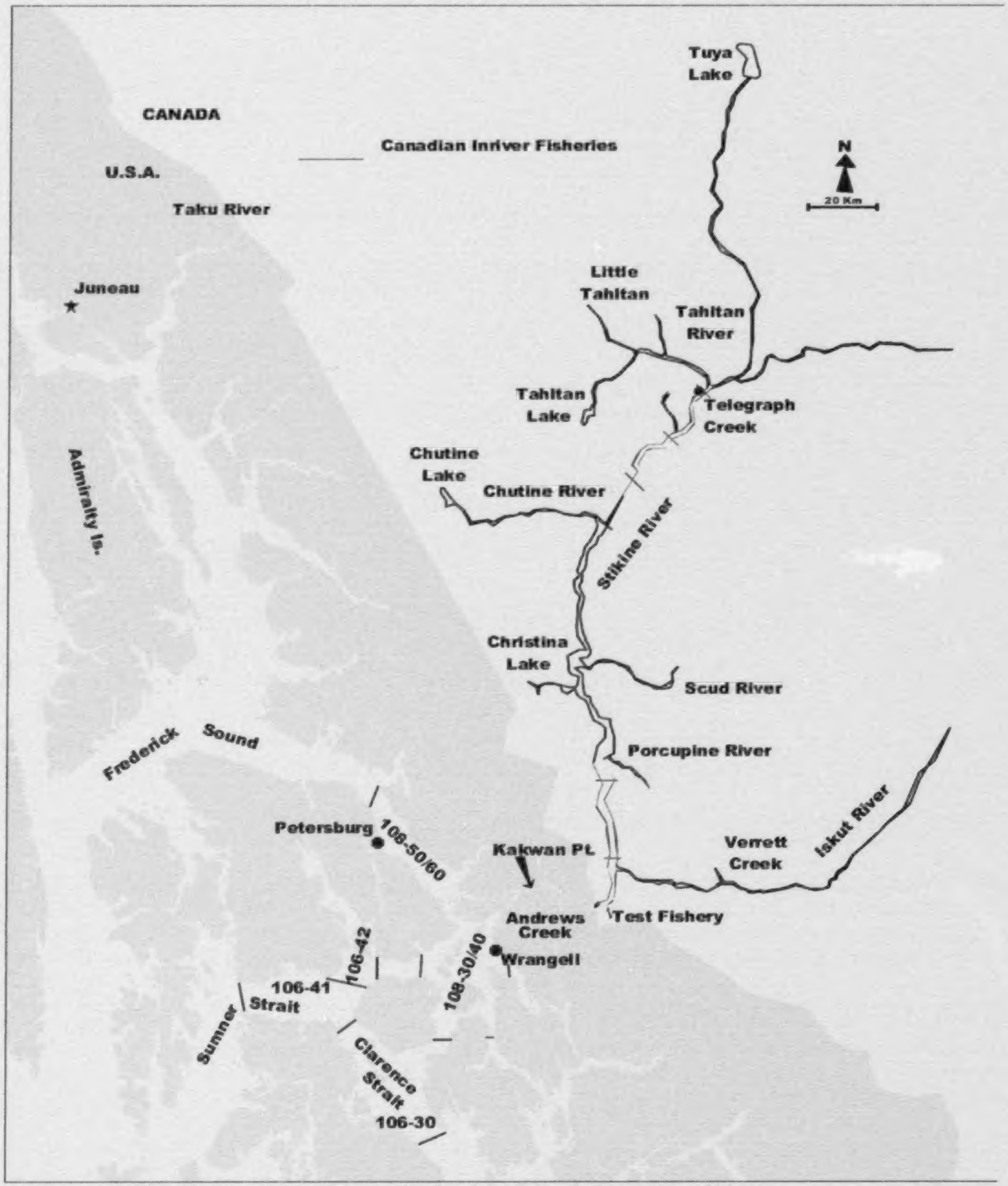

Figure 1. The Stikine River and principal U.S. and Canadian fishing areas.

Harvest Regulations and the Joint Management Model

Negotiations between Canada and the United States to replace expired portions of Annex IV, Chapter 1 of the Pacific Salmon Treaty resulted in the following arrangements for Stikine River salmon which are expected to be in place through 2018. Highlights of the of the PSC negotiations held in Portland, Oregon in January 2008 included: the continuation of directed fisheries for Stikine River Chinook salmon stocks, first implemented in 2005; continuation of a US subsistence fishery on Chinook and coho salmon stocks within the US section of the Stikine River; continuation of coho harvest shares; and, a sockeye harvest sharing arrangement based on the production of enhanced fish. Details of the January 2008 agreement including harvest sharing provisions have been incorporated into the Transboundary Annex (Annex IV) of the Pacific Salmon Treaty and can be found at: http://www.psc.org/pubs/treaty.pdf.

As in most previous years, the Transboundary Technical Committee (TTC) met prior to the season to update joint management and enhancement plans, develop run forecasts and determine new parameters for input into the inseason Chinook and sockeye salmon run projection models. The nascent Chinook salmon model is referred to as the Stikine Chinook salmon Management Model (SCMM) and served as a key management tool governing weekly fishing regimes for Stikine River Chinook salmon. The SCMM, however, was complemented inseason with a concurrent mark-capture study and other inriver assessment methods. The sockeye salmon model is referred to as the Stikine Management Model (SMM). The SMM was complemented inseason with concurrent inriver run size estimates based on fishery performance against historical fishery performance and run size estimates.

Chinook Salmon

The SCMM model is based on the linear regression (correlation) between weekly cumulative CPUE of large Chinook salmon at the tagging site and terminal run size based on mark-recapture studies conducted in 1996–2005 (2006–2008 correlation not used). Most of the CPUE and run size data sets are significantly correlated. Inseason model estimates were available commencing in week 23 (Table 1). Mark-recapture estimates based on the cumulative ratio of tagged-to-untagged fish observed in the inriver commercial fishery were also generated commencing in week 23. In order to honor Annex IV, Chapter1, Paragraph 3(a)(3)(vii), which obliges the Parties to apportion their overall TAC by historical weekly run timing, weekly fishery openings were announced based on weekly guideline harvests. The Canadian guideline harvests were derived from historical run timing data from the 2005 and 2006–2008 inriver commercial fisheries and the 2000–2003 inriver test fisheries. The U.S. guidelines were derived from historical run timing in District 108 (1969–1973, 2005–2008) and historical CPUE from the Kakwan Point tagging site, delayed one week (1996–2004) and the 2001–2003 average CPUE form the Canadian Chinook salmon test fishery delayed one week.

The preseason Chinook salmon forecast was used during weeks 19–22. After week 22, inseason forecasts of terminal run size and TAC were used to assist in determining weekly fishing plans (Table 1). The inseason estimates were based on averaging the

SCMM, the m-r capture estimate, an estimate derived from the regression of cumulative CPUE against terminal run size from 2005–2008, and the estimate based on the inriver harvest rate to date expanded by run timing. The weekly inputs to the model included: the catch and effort data from Kakwan Point, the District 108 sport, troll, and gillnet harvest. The Canadian sport and gillnet harvest were also added to the model. Weekly guideline quotas were established in District 108 and Canada based on the historical run timing curves mentioned above.

Table 1. Stikine River large Chinook salmon run size based on a model (SCMM) and mark-recapture estimates, and other methods, and weekly harvest estimates from the District 108 gillnet, sport, and troll fisheries and the Canadian gillnet and sport fisheries, 2009.

Stat	Start	Terminal Run		TAC			Estimated Harvest	
Week	Date	Estimate	Method	Total	Weekly	Cum.	Weekly	Cumulative
Canada Estimates[a]								
19	03-May	32,000	Preseason	5,810	107	107	9	9
20	10-May	32,000	Preseason	5,810	305	412	90	99
21	17-May	32,000	Preseason	5,810	368	779	263	362
22	24-May	32,000	Preseason	5,810	342	1,121	145	507
23	31-May	25,500	Average[a]	3,300	214	734	267	774
24	07-Jun	25,200	Average[a]	2,930	213	973	111	885
25	14-Jun	24,700	Average[b]	2,500	244	1,189	24	909
26	21-Jun	24,700	Average[c]	2,500	479	1,636	554	1,463
27	28-Jun	23,600	Average[b]	2,300	366	1,926	353	1,816
28	05-Jul	19,900	Average[b]	2,300	243	2,042	140	1,956
29	12-Jul	19,900	Average[b]	2,300	216	2,115	131	2,087
30	19-Jul	19,900	Average[b]	2,300	182	2,155	170	2,257
31	26-Jul	19,900	Average[b]	2,300	122	2,258	66	2,323
32	02-Aug	19,900	Average[b]	2,300	105	2,281	5	2,328
33	09-Aug	19,900	Average[b]	2,300	98	2,292	2	2,330
34	16-Aug	19,900	Average[b]	2,300	21	2,300		2,330
Postseason Final		15,118						2,284
U.S. Estimates[a]								
19	03-May	32,000	Preseason	390	25	32	41	41
20	10-May	32,000	Preseason	390	30	62	100	141
21	17-May	32,000	Preseason	390	46	107	285	426
22	24-May	32,000	Preseason	390	60	167	245	671
23	31-May	25,500	Average[a]	101	19	63	87	758
24	07-Jun	25,200	Average[a]	50	9	40	172	930
25	14-Jun	24,700	Average[b]	20	2	18	107	1,037
26	21-Jun	24,700	Average[c]	20	1	19	267	1,304
27	28-Jun	23,600	Average[b]	0	0	0	169	1,473
28	05-Jul		Average[b]	0	0	0	71	1,544
29	12-Jul	20,000	Average[b]	0	0	0	58	1,602
Postseason Final		15,118						1,507

[a] Average of mark-recapture and SCMM

[b] Used week 25 estimate (fishery was closed in week 25 so no additional metrics.)

[c] Average of mark-recapture, SCMM, inriver commercial CPUE, estimated harvest rate to date.

The preseason forecast for the Stikine River large Chinook salmon terminal run was approximately 32,000 fish (Table 1), which indicated a run size characterized as below average. Joint Canadian and U.S. inseason predictions of terminal run size ranged from 19,900 to 25,500 Chinook salmon (Table 1). Managers used the daily catch and effort data transmitted from the Kakwan Point tagging site to make daily run projections. Joint weekly run size estimates were calculated on Wednesday or Thursday in the current week and were used to set the following week's fishery openings. Managers used the average of the model and m-r estimates in weeks 23–24. Because the number of tags released was a record low as was the Kakwan catch, other assessment tools were used post week 24 to generate a weekly run size. These methods included estimates using the cumulative cpue in the Lower Stikine commercial fishery to calculate terminal run size based on the historical relationship of these data, and an estimate of the lower commercial fishery harvest rate to the current date and expanded by Chinook run timing (fraction through the fishery). All inseason projections indicated a run size that was less than the preseason expectation and below the 2002–2007 average run size. Based on M-R data from the inriver commercial fishery, the final postseason estimated terminal run size of Stikine Chinook salmon was 15,118 large Chinook salmon, below the final preliminary inseason estimate of 19,900 large Chinook salmon, and well below the preseason forecast of 32,000 large Chinook salmon (Table 1). The 2009 Little Tahltan escapement of 2,245 fish represents approximately 18% of the total inriver escapement of 11,086 fish.

Sockeye Salmon

The preseason forecast for the Stikine River sockeye run was approximately 247,500 fish (Table 2), and characterized as an above average run. The forecast included approximately 118,400 natural Tahltan sockeye salmon, 25,400 enhanced Tahltan fish, 25,400 enhanced Tuya sockeye salmon, and 58,100 mainstem sockeye salmon. The preseason forecast was used in week 25 and 26 and the SMM was used beginning in week 27 for District 106 and for the inriver fisheries.

Starting in week 27, weekly inputs of the harvest, effort, and stock composition were entered into the SMM to provide weekly forecast of run size and TAC. Specific inputs include proportion Tahltan/Tuya from egg diameters, proportion enhanced Tuya from thermal mark analyses of otoliths in the Canadian lower river test (when in operation) and commercial fisheries; the upper river harvest in the aboriginal fishery (AF) and upper river commercial fishery; the harvest, effort and assumed stock composition in Subdistrict 106-41 (Sumner Strait); and, the harvest and assumed stock composition in District 108 and Subdistrict 106-30 (Clarence Strait).

The SMM provides inseason projections of the Stikine River sockeye run, including: the Tahltan stock (wild and enhanced combined); the enhanced Tuya stock; and the mainstem stocks. The SMM uses linear regression by historical stock specific harvest data to predict run size from cumulative CPUE for each week of the fisheries. It breaks the stock proportions in District 106 and 108 harvest, from historical postseason scale pattern analysis (SPA) into triggers of run size for Tahltan and Mainstem; the averages used each week depended upon whether the run was judged to be below average (0–40,000), average (40,000–80,000), or above average (+80,000). The SMM for 2009 was based on CPUE data from 1985 to 2008 from the Alaska District 106 fishery and the Canadian commercial fishery in the lower river and from 1986 to 2004 from the lower Stikine River test fishery. The enhanced Tuya and Tahltan stock proportions are adjusted inseason based on the analysis of otolith samples taken in Districts 106 and 108. To account for the addition of the enhanced Tuya fish (wild fish only from 1985–1993, since 1994 enhanced fish have been returning to Tuya) the weekly estimate of Tuya fish in District 106-41 and 108 was added to the historical proportion of Tahltan fish in the SMM since this stock was not present in the historical database.

Generally, the SMM has used the Canadian Lower River Commercial (LRCF) fishery CPUE to estimate the inriver run size, but both LRCF and Lower River Test fishery CPUE were entered into the SMM model to compare and contrast the respective run sizes generated from each of the inputs. In 2009 the upper commercial fishing zone (Flood fishery) was opened for harvest; in years that it is opened the harvest and effort from this area are excluded from the CPUE and not used in the model estimate. The annual weekly CPUE values were adjusted in order to make the current year data comparable with historical CPUE. For example, during 1979–1994 and 2000–2004, only one net per licence was permitted, while in 1996–1999 and 2005–2009 two nets per license were allowed. Only one net was permitted in the 2013 fishing season and the model was adjusted accordingly.

After week 27, Canada used a combination of inseason forecasts of run size and TAC, produced by the SMM, and Tahltan Lake sockeye and non-Tahltan sockeye salmon regression models to develop weekly fishing plans (Table 2).

Other assessment methods including inseason run reconstruction and a linear regression of CPUE of Tahltan Lake sockeye salmon and mainstem sockeye salmon against total inriver run size (1998–2007) were occasionally used in concert with the SMM by Canada post week 27 during the 2009 fishing season (Table 2).

Table 2. Weekly forecasts of run size and total allowable harvest for Stikine River sockeye salmon as estimated inseason by the Stikine Management Model, 2009.

Stat. Week	Start Date	Terminal Run Estimate	Terminal Run Method	TAC Total	TAC U.S.	TAC Canada	Cum. Harvest U.S.	Cum. Harvest Canada
Model runs generated by Canada								
25	14-Jun	274,500	Preseason	206,660	103,330	103,330		
26	21-Jun	274,500	Preseason	206,660	103,330	103,330		2,463
27	28-Jun	235,500	Model	173,000	86,500	86,500		15,365
28	05-Jul	182,300	Inriver Regression	116,000	58,000	58,000		23,677
29	12-Jul	140,000	Average Model & Regression	75,600	37,800	37,800		30,435
30	19-Jul	132,700	Average Model & Regression	68,800	34,400	34,400		38,263
31	26-Jul	133,400	Average Model & Regression	68,800	34,400	34,400		41,803
32	02-Aug	162,300	Average Model & Run Reconstruction	101,600	50,800	50,800		43,533
33	09-Aug	165,500	Average Model & Run Reconstruction	100,200	50,100	50,100		44,829
34	16-Aug	155,300	Run Reconstruction	89,000	44,500	44,500		45,390
35	23-Aug	160,500	Run Reconstruction	95,200	47,600	47,600		45,765
36	30-Aug	160,500	Run Reconstruction	95,200	47,600	47,600		45,880
Model runs generated by the U.S.								
25	14-Jun	274,500	Preseason	206,107	103,054	103,054	4,863	0
26	21-Jun	274,500	Preseason	206,107	103,054	103,054	19,977	2,446
27	28-Jun	234,440	Model	171,881	85,941	85,941	39,607	6,001
28	05-Jul	231,315	Model	168,343	84,172	84,172	51,278	18,134
29	12-Jul	190,622	Model	126,418	63,209	63,209	55,069	26,173
30	19-Jul	186,393	Model	121,943	60,972	60,972	57,398	30,755
31	26-Jul	176,463	Model	112,116	56,058	56,058	60,692	38,146
32	02-Aug	185,437	Model	120,284	60,142	60,142	62,218	40,015
33	09-Aug	179,467	Model	115,105	57,553	57,553	63,485	45,163
34	16-Aug	181,821	Model	117,970	58,985	58,985		
Final postseason estimate 185,276				118,777	59,388	59,388		

[a] Does not include test fishery harvest

The weekly inputs to the Tahltan sockeye salmon regression model included the cumulative weekly CPUE of Tahltan Lake sockeye salmon (1998–2008: from week 28 to 33 all correlations were significant and ranged from an r^2 of 0.67 in week 28 to an r^2 of 0.91 week 33). The contribution of Tuya origin sockeye salmon was based on otolith marks and presented as a ratio of the total Tahltan run size. The contribution of mainstem sockeye salmon was based on egg diameter measurements and presented as a ratio of total Tahltan run size or calculated based on a regression of cumulative CPUE against to inriver run size (1998–2008: from week 28 to 33 all correlations were significant and ranged from an r^2 of 0.31 in week 28 to an r^2 of 0.64 week 33). The contribution of Tuya sockeye salmon (thermal marks) and mainstem sockeye salmon (large eggs) were expressed as a ratio of the total Tahltan Lake run. Preliminary results of thermal mark analyses were available inseason for the marine and lower river fisheries to account for Tuya production in the model and reduce the risk of over-estimating the TAC of Tahltan sockeye salmon. In 2009 the SMM, based on commercial fishery performance, was the primary forecast used by the US, while Canada used the regression models in conjunction with the commercial fishery derived SMM.

Canadian inseason predictions of terminal run ranged from 235,500 to 132,800 sockeye salmon; U.S. forecasts ranged from 234,400 to 176,400 (Table 2). All inseason forecasts indicated a run that was below the preseason forecast. Differences in U.S. and Canadian weekly predictions are due to different approaches to assessing the inseason run size, with Canada electing to forego the SMM estimates exclusively and use the run reconstruction and Tahltan regression assessment methods in concert with the model estimate for all of the fishing season; the US used the SMM exclusively in assessing weekly run sizes.

In 2009 the SMM, based on commercial fishery performance, was the primary forecast used by the US (Table 2). It was also used for the preliminary postseason harvest estimates of Mainstem and Tuya in US fisheries. The final postseason estimates of run size and TAC are close to the U.S. estimates generated by the model, but higher than most of the Canadian estimates which were generated using a suite of assessment tools cited above. The final SMM estimate (178,736) was 4% lower than the final postseason estimate of 185,276 (Table 2).

Table 3. Terminal run reconstruction for Stikine River sockeye salmon, 2009.

				Terminal	Tahltan	
	All Tahltan	Tuya	Mainstem	Stikine	EnhacedTahltan	WildTahltan
Escapementa	30,324	13,226	17,148	60,698	4,971	25,353
ESSR Harvestb	0			0		
Broodstock	3,011			3,011	930	2,081
Natural Spawning	27,313		17,148	44,461	4,041	23,272
Excessc		13,226		13,226		
Biological Samples	349	214		563	59	290
Canadian Harvest						
Aboriginal	3,530	1,449	169	5,148	738	2,791
Upper Commercial	1,654	749	73	2,476	390	1,264
Lower Commercial	23,666	9,852	5,891	39,409	6,124	17,542
Total	28,850	12,050	6,133	47,033	7,253	21,597
% Harvest	43.4%	39.4%	26.2%	39.0%	40.4%	44.5%
Test Fishery Harvest	434	251	657	1,342	125	309
Tuya Test	471	1,530	144	2,145	81	390
All Inriver harvest	29,755	13,831	6,934	50,520	7,459	22,296
(harvest plus samples)	30,104	14,045	6,934	51,083	7,518	22,586
Inriver Run	60,428	27,271	24,082	111,780	12,430	47,649
U.S. Harvesta						
106-41&42	23,623	8,589	5,583	37,795	6,938	16,685
106-30	462	1,491	3,057	5,009	115	346
108	13,188	8,271	8,508	29,968	3,560	9,628
Subsistence[a]	391	176	156	723	101	290
Total	37,664	18,527	17,304	73,495	10,714	26,950
% Harvest	56.6%	60.6%	73.8%	61.0%	59.6%	55.5%
Test Fishery Harvest	0	0	0	0	0	0
Terminal Run	98,092	45,798	41,385	185,276	23,144	74,599
Escapement Goal	24,000	0	30,000			
Terminal Excessd		11,408				
Total TAC	73,658	34,390	10,728	118,777		
Total Harveste	66,948	30,828	24,094	121,870		
Canada TAC	36,829	17,195	5,364	59,388		
Actual Harvestfg	28,850	12,050	6,133	47,033		
% of total TAC	78%	70%	114%	79%		
U.S. TAC	36,829	17,195	5,364	59,388		
Actual Harvest fg	37,664	18,527	17,304	73,495		
% of total TAC	102%	108%	323%	124%		

U.S. overage/underage

Canada overage/underage

[a] Escapement into terminal and spawning areas from traditional fisheries.

[b] Harvest allowed in terminal areas under the Excess Salmon to Spawning Requirement license.

[c] Fish returning to the Tuya system are not able to access the lake where they originated due to velocity barriers.

[d] The number of Tuya fish that should be passed through traditional fisheries in order to harvest the Tuya stock at the same rate as the Tahltan stock to ensure adequate spawning escapement for Tahltan fish.

[e] Includes traditional, ESSR, and test fishery Harvestes.

[f] Does not include ESSR or test fishery Harvestes.

[g] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for Harvestes other than in the listed fisheries.

U.S. Fisheries

The 2009 gillnet harvest in District 106 included 2,138 Chinook, 111,984 sockeye, 144,569 coho, 143,589 pink, and 287,707 chum salmon (Appendices A.1, A. 4, A. 14, B. 1, and B. 2). All salmon harvests were above average with the exception of the pink salmon harvest, which was below average. The estimated contribution of Stikine River sockeye salmon harvested in District 106 was 42,805 fish or approximately 38% of the harvest (Appendices A.5–A. 8). The District 106 drift gillnet fishery was open for 45 days from June 14 through October 3 (Appendix A.16). Total fishing time was below average (Appendix B.1). Sections 6-A, 6-B, and 6-C were open simultaneously each week throughout the season. Weekly fishing effort in number of vessels fishing in District 106 was above average for every week of the season with the exception of weeks 29 through 31 and week 35. The greatest effort in vessels fishing (99 boats), and the greatest number of boat days (297) both occurred in week 36 (Appendix A.16). The total season effort was above average at 3,253 boat days (Appendix A.16).

The Sumner Strait fishery (Subdistricts 106-41 & 42) harvested an estimated 37,795 Stikine River sockeye salmon (Table 3; Appendix A.6); 46% of the total sockeye salmon harvest in that subdistrict. The Clarence Strait fishery (Subdistrict 106-30) harvested an estimated 5,009 Stikine River sockeye salmon (Appendix A.7), 6% of the total sockeye salmon harvest in that subdistrict.

The District 108 total season gillnet harvest (excluding the Chinook test fishery) included 2,830 Chinook, 36,680 sockeye, 30,860 coho, 27,010 pink, and 190,800 chum salmon (Appendices A.1, A. 4, A. 14, B. 1, and B. 2). Coho and chum salmon harvests were above average while Chinook, sockeye, and pink salmon harvests were below average. The District 108 fishery harvested an estimated 29,968 Stikine River sockeye salmon (Appendix A.8); 82% of the District 108 sockeye salmon harvest. The District 108 fishery started on June 21 after being postponed two weeks for Stikine Chinook conservation. District 108 and District 106 closed in week 40 on September 29. The 47 days the district was open is average excluding the directed Chinook fishery that took place the previous four seasons (Appendix A.16). The average days fished in District 108 including the directed Chinook fisheries is 52 days. An estimated 28% (8,537 fish) of the District 108 coho salmon harvest was of Alaskan hatchery origin (Appendix A.14). The Alaska hatchery Chinook salmon contribution in District 108 was estimated at 1,706 fish, 71% of the total harvest (Appendix A. 1). The weekly fishing effort in number of vessels fishing in District 108 was above average every week with the exception of weeks 26, 27, 29, and 36.

In 2009, U.S. Federal subsistence Chinook, sockeye and coho salmon fisheries were again conducted on the Stikine River. The fisheries were managed by the United States Forest Service. A permit issued by the USFS to federally qualified users was required. The fisheries took place on the Stikine River upriver from marine waters to the U.S./Canadian border. Fishing in "clearwater" tributaries or side channels and at stock assessment sites was prohibited. The annual Guideline Harvest Levels were 125 Chinook, 600, sockeye, and 400 coho salmon. The open dates were May 15 to June 20 for the Chinook salmon fishery, June 21 to July 31 for the sockeye salmon fishery, and August 1 to October 1 for the coho salmon fishery. The allowable gear for the fishery included dipnets, spears, gaffs, rod and reel, beach seine, and gillnets not exceeding 15 fathoms in length with mesh size no larger than 5½ inches except during the Chinook fishery when mesh up to 8 inches was allowed. A total of 80 permits were issued and the estimated harvests included 31 Chinook, 723 sockeye, and 21 coho salmon.

The 2009 season marked the first season in the past five where a directed Stikine River Chinook drift gillnet fishery did not occur. The preseason terminal run forecast of 32,000 large Stikine Chinook resulted in a US TAC of 390 fish above the 3,400 fish base level. Fishermen and processors were notified that an in-season run estimate would be produced in late May and if this estimate was similar to or greater than the preseason forecast, a limited directed fishery could occur.

Although the US TAC based on the preseason forecast did not allow for a directed commercial fishery, a test fishery was implemented in order to correlate marine Chinook harvest rates with run size. The test fishery was designed for three boats to fish for a 24-hour period each week in three separate areas within District 108 starting the first Monday in May. Only four of the proposed seven test fish openings occurred as the first inseason terminal run estimate dropped to approximately 25,500 fish. This initial estimate, which came out on May 28, reduced the US TAC to 100 fish. The test fishery was never reinstated due to a lack of allowable catch. The test fishery harvested a total of 109 large Stikine Chinook (Appendix A. 1). The fishery did not progress into the peak of the Stikine Chinook run timing through District 108, and therefore, the harvest rate information gained was not complete. However, a similar fishery in the future may help provide run size and run timing indicators in marine waters if there is some US allowable harvest but not enough to prosecute a commercial fishery.

The total number of large Stikine Chinook harvested by District 108 gillnetters from weeks 26 through 29 (during sockeye management openings) was approximately 244 fish (estimate based on GSI). The initial gillnet sockeye season opening was postponed by one week in District 106 and by two weeks in District 108 due to Stikine Chinook conservation concerns. District 108 troll hatchery access openings through the end of June resulted in a total harvest of 188 Stikine Chinook. Troll hatchery access openings were also reduced for Stikine Chinook conservation in weeks 23 through 25. Two of the three hatchery access areas (the two having the highest component of Stikine Chinook in the harvests) within District 108 were reduced to one day openings in weeks 23 and 25, while these same two areas were closed in week 24. The District 108 sport fish Stikine Chinook harvest estimate from weeks 18 through 29 was 887 fish (estimate based on

GSI). The final cumulative U.S. harvest of large Stikine Chinook salmon through week 29, including the federal Stikine subsistence fishery and District 108 test fishery, was 1,463 fish. The post-season estimate of the total terminal run was approximately 15,118 large Chinook and was based upon mark-recapture information. Based upon that final post-season estimate of the run size, the U.S. allowable harvest was 0 large Stikine Chinook salmon above the base level catch.

The District 106 gillnet season began at 12:00 noon on Monday, June 15 (week 25) for an initial two-day period. The sockeye fishery was originally planned to open the week prior (June 8). However, this opening would have been the earliest second Monday of the month possible and the Stikine Chinook inseason run estimate had decreased significantly, therefore it was decided to postpone the opening by one week. Monday openings will occur during the first two sockeye management periods due to a recent Board of Fish action attempting to minimize interactions between commercial gillnetters and sport fishermen on the weekends during the Stikine Chinook run. No additional area closures were implemented in District 106 and District 108 remained closed. The first sockeye salmon opening is normally two days and any decision to extend fishing is based on fishery harvest rates estimated by management biologists on site in the fishery. Sockeye harvest rates were exceptional during the opening and a one-day extension was announced resulting in three total days of fishing for the week. Six boats fished in Clarence Strait (106-30) for this initial sockeye opening and 64 boats fished in Sumner Strait (106-41). The preseason SMM forecasted a total Stikine River TAC of 206,107 fish and a Tahltan TAC of 118,857 fish (Table 2). This run size would allow the U.S. fisheries to harvest a total of 103,054 Stikine River fish, including 59,429 Tahltan fish. The pre-season forecast was used for weeks 25 through 27, while inriver run estimates were produced weekly starting in week 27 and used from weeks 28 through the remainder of the season.

During week 26 (June 21–June 27), there were 57 boats fishing in Sumner Strait, 14 boats fishing in Clarence Strait and 42 boats fishing in District 108 during the total four days of fishing (Appendices A. 16). This was the first opening of the season in District 108. The initial opening was announced for three days in each district and was extended by an additional day in both districts due to above average sockeye harvest rates. The District 106 sockeye harvest rates were slightly above average while the District 108 harvest rates, for those boats targeting sockeye, were well above average. The boat distribution in District 108 was already showing a shift towards the south end of Section 8-B in order to target returns of Anita Bay Chinook, and eventually chum, as has been the pattern in recent seasons. These boats targeting larger fish, farther from the Stikine River create a reduced district-wide average sockeye harvest rate. Significant portions of Section 8-A and 8-B were closed during this opening to further aid in Stikine Chinook conservation. These area closures limited fishing in District 108 to waters far off the mouth of the river. The inseason otolith readings for sub-district 106-41 indicated that 16% of the harvest was comprised of thermally marked Tahltan fish while 20% were Tuya fish. In District 108, 13% were thermally marked Tahltan fish and 34% were Tuya fish.

During week 27 (June 28–July 4), there were 67 boats fishing in Sumner Strait, 23 boats fishing in Clarence Strait and 65 boats fishing in District 108 (Appendices A.16). Both districts were opened for an initial three days this week due to solid sockeye harvest rates in both districts and strong inriver indications. The boats targeting sockeye in Section 8-B were minimal as chum harvest in District 106 were significant. Those boats targeting sockeye in District 108 enjoyed well above average harvest rates. The District 106 sockeye harvest rates were split, with Clarence Strait having solid harvest rates and Sumner Strait having below-average harvest rates. With sub-average sockeye harvest rates in Sumner Strait and above average harvest rates everywhere else, a 24-hour midweek opening in District 108 was announced. The inseason otolith readings for sub-district 106-41 for week 26 indicated that 1% of the harvest was comprised of thermally marked Tahltan fish while 7% were Tuya fish. The District 108 reading indicated 19% thermally marked Tahltan fish and 22% Tuya fish. The first inseason terminal run estimate was produced this week and resulted in a terminal run that was over 40,000 fish less than the preseason forecast. This estimate reduced the U.S. TAC to 84,000 Stikine sockeye with 39,000 Tahltan fish. The U.S. Tahltan sockeye harvest estimate at this point was 24,000 fish.

During week 28 (July 5–July 11), District 106 and 108 were opened for an initial three days (Appendix A.16). There were 32 boats fishing in Clarence Strait, 53 boats in Sumner Strait, and a total of 68 boats fishing in District 108 for the week (Appendices A. 16). Surveys on the fishing grounds showed that sockeye harvest rates were near average in District 106 and above average for those boats targeting sockeye in Section 8-B. Chum harvest rates in District 108 began to increase significantly this week. With average to above average sockeye harvest rates and a large proportion of the District 108 fleet targeting chum, a 24-hour midweek opening was announced in District 108. The inseason percentage of thermally marked Tahltan sockeye salmon in sub-district 106-41 fell to 1% while the marked Tuya fish contributed 3%. In District 108, marked Tahltan fish contributed 5% while marked Tuya fish contributed 16%. The Stikine sockeye model estimate decreased the total Stikine sockeye U.S. TAC to 63,000 fish with a Tahltan TAC of 39,000 fish. The estimated cumulative U.S. harvest of Tahltan sockeye salmon was 30,000 fish. The mainstem run forecast stayed similar to the previous week at around 53,000 fish with a U.S. TAC of 11,000 fish. The estimated U.S. harvest of mainstem fish at this point was 6,000 fish.

During week 29 (July 12–July 18), 24 boats fished in Clarence Strait, 28 boats fished in Sumner Strait, and 36 boats fished in District 108 (Appendices A.16). Fishing time was reduced to two days in both districts this opening for the initial week of the McDonald Lake sockeye conservation period. Any additional time during this three-week period would be in the form of a midweek opening in District 108. The effort fell substantially this week in both districts due mainly to boats leaving for the Juneau area where chum harvest were rapidly growing. Sockeye harvest rates were the best of the season in District 106 and for the few boats targeting sockeye in District 108. However, a preliminary inseason model dropped the terminal run estimate by nearly 30,000 sockeye which resulted in the U.S. already being over the Tahltan TAC. Even with some of the lowest effort of the season in both districts and well above average sockeye harvest rates, no extra time was announced due to allowable harvest concerns. The inseason otolith readings for week 29 indicated that the marked Tahltan fish contributed 1% of the District 106 harvest and 10% of the District 108 harvest. The marked Tuya fish contributed 1% in District 106 and 6% in District 108. The SMM decreased the Tahltan terminal run estimate to 99,000 fish, with a U.S. TAC of 37,000 fish. The estimated U.S. Tahltan harvest by the end of this week was 31,500 sockeye salmon.

During week 30 (July 19–July 25), there were 35 boats fishing in District 106 and 82 boats fishing in District 108 (Appendices A.16). Both districts were open for an initial two days. Effort was at the lowest point of the season thus far in District 106. Sockeye harvest rates in 106-41 continued to be well above average and even with poor weather and reduced sockeye harvest in 106-30, the total District 106 sockeye harvest rates were above average. Only six boats were observed targeting sockeye in Section 8-B on the survey and they had well above-average sockeye harvest rates. This week had the highest chum harvest rates in District 108 and the vast majority of the fleet continued to target the Anita Bay return. The Tahltan sockeye run was returning in record numbers, and by this time, more than 18,000 sockeye were through the weir. The mainstem component had also increased slightly last week. With a small fleet targeting sockeye and reduced concerns for Stikine fish, a 48-hour midweek opening was announced in District 108. This midweek opening had much higher than anticipated effort as the chum fishing in the Juneau area slowed considerably this week and several of these boats headed to District 108 for the extended opening to target chum. The inseason otolith readings for week 30 indicated no marked Tahltan fish in the District 106 harvest and 11% of the District 108 harvest. The SMM estimated a U.S. Tahltan TAC of 34,000 sockeye this week. The U.S. harvest of Tahltan sockeye salmon through week 30 was estimated at 32,000 fish. The SMM estimated a U.S. mainstem harvest of 9,000 sockeye salmon with a U.S. TAC of 10,000 fish.

During week 31 (July 26–August 1), there were 68 boats fishing in District 106 and 94 boats fishing in District 108. Both districts were open for an initial two days. Sockeye harvest rates continued to be well above average in District 106 and above average for the small number of boats targeting sockeye in District 108. The model produced this week increased the mainstem run estimate to 59,000 fish which brought the US AC over 14,000 fish. With a small sockeye fleet and an increased mainstem run estimate, a 24-hour midweek was announced in District 108. Marked Tahltan/Tuya sockeye were nearly nonexistent in District 106 this week while in District 108, of the harvest consisted of 2% marked Tahltan and 5% Tuya fish. The SMM estimated the total Tahltan run size at 94,000 fish with a U.S. TAC of 35,000 fish. This was the last week of sockeye management in both districts. The final inseason SMM run, released in week 33, estimated a total U.S. harvest of 63,500 Stikine sockeye salmon broken into 33,300 Tahltan fish, 16,800 Tuya fish, and 13,400 mainstem fish. The US TAC for each component was 33,600 Tahltan fish, 10,600 Tuya fish, and 14,800 mainstem fish.

During weeks 32 through 35 (August 2–August 29), both Districts 106 and 108 were managed for pink salmon. Both districts were open three days a week during this period. Section D of District 106 was closed from week 32 through week 36. The region-wide preseason pink salmon forecast was substantial this year, yet returns to District 106 displayed few signs of strength throughout the season. Pink salmon harvests in both districts are not always a true reflection of abundance because low prices for pink salmon and harvest of other more valuable species may affect the fishing patterns and methods. During the 2009 season, the fishing effort was generally well above the weekly average effort in both districts throughout the pink salmon management period. Above average coho and chum harvests were likely the catalysts behind the increased effort in both districts. Total pink salmon harvests were far below average in District 106 while District 108 had above average harvests during the pink salmon management period but a below average total harvest.

Coho salmon management typically commences in late August or early September in both the District 106 and 108 gillnet fisheries. During week 36 (August 30 – September 5) the management emphasis changed from pink to coho salmon. Prior to the switch to coho salmon management, the District 106 fishery harvested 96,011 coho salmon, approximately 66% of the total District 106 coho salmon harvest. The Neck Lake/Burnett Inlet enhanced summer coho returns made up a significant component of this early coho harvest with an estimated contribution of 46,000 coho in the District 106 fishery prior to week 36. The average weekly Alaska hatchery coho salmon harvest rate in the District 106 fishery was above average until week 36, at which point it remained below average the rest of the season. Total average weekly coho harvest rates in District 106 were above average in weeks 29 through 34 and were below average in openings before and after this period. In District 108, weekly coho harvests were generally above average from week 30 through the end of the season. Coho harvests in both districts tapered off significantly the last two weeks of the season although harvest rates in District 108 were above average in the last opening. Both districts had three day openings from weeks 36 through 39 and then ended with a two day opening in week 40. The 2009 gillnet season in both districts ended at noon on Tuesday, September 29.

Canadian Fisheries

Harvest from the combined Canadian commercial and aboriginal gillnet fisheries, and sport fishery in the Stikine River in 2009 included: 2,284 large Chinook (includes 170 release mortalities), 651 non large Chinook (includes 77 release mortalities), 50,520 sockeye, 5,981 coho, 193 chum, 362 pink salmon, and 237 steelhead. A large portion of the total chum and pink salmon harvest and all of the steelhead harvest were not retained (Appendices A. 2, A. 9, A.15). A test fishery designed to target on Tuya bound fish at a site located in the mainstem Stikine River between the mouth of the Tahltan and the mouth of the Tuya River yielded a harvest of 2,144 sockeye 37 Chinook salmon, and 1 non chinook (Table 3). Seventeen Chinook were released.

The harvest of large Chinook salmon was 64% below average and the lowest harvest recorded since the targeted Chinook fishery started in 2005. Harvest of non large Chinook salmon were also well below average. The sockeye salmon harvest was 14% below average. The estimate of the total contribution of sockeye salmon from the Canada/U.S. fry-planting programme to the combined Canadian aboriginal and commercial fisheries was 21,562 fish, 43% of the harvest (Table 3). The harvest of 5,981 coho is well above average 406 fish.

A sockeye salmon test fishery was conducted for stock assessment purposes in the lower Stikine River weeks 28–36 (09 July to 04 September). The test fishery was located immediately upstream from the Canada/U.S. border. Test fishery harvest totaled: 3 large Chinook, 0 non large Chinook, 1,340 sockeye, 188 coho, 147 pink, 91 chum salmon, and 33 steelhead trout (all steelhead trout, chum and pink salmon were released; Appendices A.2, A. 9, A.15). The objectives of the sockeye salmon test fishery were similar to those in previous years: to provide inseason harvest, stock ID and effort data for input, if necessary, into the SMM to estimate the inriver run size; and, to determine migratory timing and stock composition of the sockeye salmon run for use in the postseason estimations of the inriver sockeye salmon run. Unfortunately, limited sockeye salmon test fishing was conducted during the late June and early July due budget constraints. Proxy test fishery harvest and CPUE for early July were calculated based on the performance of the commercial fishery and the historical co-relation between commercial and test CPUE, 1996–2004.

A coho salmon test fishery was conducted in the lower Stikine River weeks 36–42 (05 Sept. to 13 October). The test fishery was located immediately upstream from the Canada/U.S. border. Test fishery harvest totaled: 01 sockeye, 306 coho, 0 chum salmon, and 12 steelhead trout (all steelhead were released; Appendices A. 15). The objectives of this test fishery was to provide an index harvest expressed in cumulative weekly CPUE to complement and compare with the existing test fishery historical data set (1986–2008), which provided a general sense of relative run strength of Stikine coho salmon.

Lower Stikine River Commercial Fishery

Canadian commercial fishers in the lower Stikine River harvested 1,926 large Chinook (released 339), 651 non large Chinook (released 153), 39,409 sockeye, 5,981 coho, 362 pink, 193 chum salmon, and 237 steelhead trout in 2009 (Appendices A.1, A. 9, A. 15). The majority of pink and chum salmon were released; all steelhead trout were released. (note: the harvest of large Chinook included an estimated released fish mortality of 170 and non large Chinook harvest mortality of 77 fish.). The harvest of large Chinook salmon in the fifth year of the new, targeted fishery was the lowest on record since the 2005 inception of a targeted Chinook salmon fishery. The harvest of non large salmon was also the lowest on record , The harvest of coho salmon was well above average. The sockeye salmon harvest was slightly below average The targeted Chinook salmon fishery was opened for a total of 7.5 days, below the recent 4 year average of 30 days. The fleet targeted sockeye salmon for a total of 28 days, below the average 35 days. The coho salmon fishery was opened for a total of 19 days, above the average 6 days.

Final estimates (Table 3), the stock composition of the lower river sockeye salmon harvest was as follows: 6,124 enhanced Tahltan fish, which accounted for 16% of the sockeye salmon harvest; 17,542 wild Tahltan fish accounting for 35% of the harvest; 5,891 mainstem fish accounting for 26% of the harvest; and 9,852 enhanced Tuya fish which accounted for 24% of the harvest.

Stock compositions of the commercial harvest taken in the targeted Chinook and coho salmon fisheries are not available. However, assuming that the Chinook salmon harvest reflects the contribution of the Little Tahltan and 'other' stocks to the total inriver escapement, the commercial harvest of Chinook salmon of Little Tahltan origin was 351 large Chinook salmon, the harvest of large Chinook salmon originating from 'other' stocks was 1,406 fish.

Weekly Chinook and sockeye salmon guideline harvests, based on SCMM, SMM and other forecasts of the total allowable catch (TAC) apportioned by average run timing and domestic and international allocation agreements, were developed each week to guide management decisions during the Chinook and sockeye salmon seasons. For purposes of managing the lower river harvest, 1,100 large Chinook salmon were allocated to the upper Stikine fisheries: 150 to the sport, 50 to the upper commercial, and 900 to the Aboriginal fishery. A total of 8,000 sockeye salmon were allocated to the upper Stikine commercial and aboriginal fishery. The remaining balance of the Chinook and sockeye salmon TAC was allocated to the lower Stikine commercial fishery. Particular attention was directed at weekly Chinook salmon guideline harvests and the inriver run and escapement projections of the various sockeye salmon stock groupings. Management through week 25 (week ending 20 June) was focused primarily on the harvest of large Chinook salmon. From week 26 through week 30 (week ending 25 July), management emphasis switched to the Tahltan and Tuya lake sockeye salmon stock after which time the sole focus was the management of mainstem sockeye salmon stocks through the end of the fishery week 34 (week ending 22 Aug). The coho salmon management regime commenced on week 35 (week ending 29 August).

The preseason estimate governing the start of the 2009 commercial fishery was 32,000 large Chinook and a total Canadian TAC, including base line catch, of 5,800 large Chinook. The Chinook salmon fishery commenced at noon May 03 (week 19) for a scheduled opening of one day. Fishers were limited to two nets with a maximum length of 135 metres. The maximum mesh size was 203 mm (8 in.). Only one of the two nets was permitted to be deployed as a drift gillnet. The upper boundary of the fishing zone extended to a point near the confluence of the Porcupine and Stikine rivers. The opening was based on a preseason Canadian guideline harvest for week 19 of 107 large Chinook salmon. Fishing conditions were relatively good; however, the harvest and cpue were well below average. The low harvest and in concert with the poor catches are the Kakwan tagging site indicated that the fish had yet to enter the river in numbers required to meet the weekly guideline harvest. The fishery was thus held at one day; the total harvest was only nine fish.

The fishery was posted for two days in week 20 (10–16 May) with a weekly guideline harvest of ~320 large Chinook salmon. The day one harvest of 42 fish and harvest per boat day (c/b/d) of 3.74 fish was less than half average. Based on the performance of the day one harvest in concert with the very poor catches at Kakwan and the low harvest in the US sport fishery, an extension was not posted. The day two harvest yielded only 45 fish for a total weekly harvest of 90 large Chinook salmon, 231 fish below the weekly guideline harvest. The cumulative catch per hour registered at the Kakwan tagging site, under good fishing conditions, was ~36% of average.

In week 21 (13–3 May) the preseason run size estimate of 32,000 large Chinook salmon remained as the governing run size even though latitude was given to the managers to generate an inseason run size before 25 May as agreed to in the preseason management plan. Both US and Canadian managers reasoned there was no compelling inseason information that warranted an inseason estimate before the agreed to date; however, it was surmised that this year's run was probably below the preseason estimate of 32,000 fish. The fishery was posted for two days in week 21 (13–23 May) with a weekly guideline harvest of ~370 large Chinook salmon. The day one harvest of 179 large Chinook salmon and a projected day two harvest estimate to be at least 200 which would have put the harvest close to the weekly guide line harvest resulted in holding the fishery at two days. The actual day two catch, however, was only 90 fish for a total weekly harvest of 269 large Chinook. The drop in day two harvest was probably due to an increase in water level and a decrease in harvest rates The c/b/d of 12 fish was slightly above the 9 fish average. The cum catch per hour (c/c/h) at Kakwan Point tagging site was only 24 per cent of average. The new U.S. District 108 test fishery, which commenced in week 19, showed a slight improvement in catches, but because this sentinel fishery was in its first year there was little to glean from its fishing performance. The US District 108 sport fishery reported very low harvest . (*Note: It appeared that the fishing conditions thus far were similar to the fishing conditions faced in the 2007 season. The performance of the 2007 fishery and the run size (42,500) were contrasted with the 2009 season as additional tools in assessing run size.)*

In light of the general feeling that the run was returning in numbers below expectations, the fishery was only posted for one day in week 22 (24–30 May) even though the weekly guideline harvest of ~342 fish warranted a longer opening. A hail of 100 fish was reported after the initial 18 hrs of the fishery. The f/b/d was only 8.3 fish well below the average of 29 f/b/s and well below the harvest rate that a run size of 32,000 should produce. The fishery was thus held at one day. The total harvest for the week was 151 large Chinook. The Kakwan c/c/h remained well below average under relatively good fishing conditions. The US sport fishery harvest did not show any signs of improvement this week. The District 108 test CPUE dropped by 14 per cent from last week. The first inseason estimate was generated late this week. It showed the run dropping to ~25.5k large Chinook; a good measure below the preseason estimate of 32k fish. This new estimate governed week 23 fishery.

The fishery was posted for one day in week 23 (31 May to 06 June) with a weekly target of ~230 large Chinook salmon and a first inseason run size estimate of 25,500 Chinook salmon. The total harvest was 234 large Chinook harvested under good fishing conditions; the c/b/d was 22 fish vs an average c/b/d of 26. The fishery was held at one day due to the fishery meeting its weekly guideline harvest. The Kakwan c/c/d was only 7.8 fish vs an average of 42.3 fish. The US sport fish harvest remained well below average this week. The District 108 test fishery was closed due to the drop in run size and the U.S. allowable catch.

In week 24 (07–13 June) the fishery was posted for 12 hours. This week's run size dropped slightly to 25.2k. The cumulative harvest as of Week 23 was 796 fish; the cum guideline harvest for this week was 974, leaving a weekly guideline harvest of 178 large chinook. The 12 hour opening yielded a harvest of 114 fish and a c/b/d of 19 fish vs an average c/b/d of 65. This week typical boasts a pre peak run timing and catches are typically strong. The harvest in District 108 sport fishery did not provide any hope for a late, strong return of Stikine chinook. The c/c/h at Kakwan remained well below average. A new run size estimate of 24,700 large Chinook was generated on Thursday of this week. This estimate will serve to guide management for week 25 and clearly showed that there was very limited room to mount a commercial fishery with a guideline harvest of 32 fish (cum guideline harvest of 942 fish minus cumulative harvest to date of 910 large Chinook.)

The commercial fishery was closed in week 25 (14–20 June) for reasons cited above. On average, the Chinook migration peaks this week; however, catches at Kakwan, located approximately 15 km downstream for the commercial fishing grounds did not show an increase in harvest indicative of a peak in migration. The c/c/h was only 8.6 fish vs and average of 78.5 large Chinook. (The fishing conditions, however, were poor due to flooding.) Harvest from the Upper Stikine First Nation fishery were reported to be very weak as was the harvest in the small recreational fishery located at the mouth of the Tahltan River. The run size estimates continue to downward trend with this week's estimate dropping to 24,700 large Chinook. This estimate will guide the management plan for next week to a degree in light of the management regime switching to sockeye harvest in week 26. The proposed U.S District 108 sockeye fishery was not opened a scheduled due to the Chinook salmon conservation concern; District 106 had its first opening and reported very good harvest of sockeye.

In week 26 (22–28 June) the fishery management focus switched from Chinook to sockeye; however, the weak return of Chinook and the downward trend in the run size estimate to 24,700 fish this week resulted in managing the fishery based on the guideline harvest of large Chinook salmon. In order to minimize the incidental harvest of Chinook salmon, capped at ~200 fish, a mesh size restriction of 150 cm (5.75in) was implemented. After day one of a two day fishery and a Chinook harvest of 235 large Chinook salmon and 1,046 sockeye it was decide not to extend. The two day fishery yielded a harvest of 470 large Chinook and 2446 sockeye, which was well over the Chinook guideline harvest and well below the sockeye guideline harvest ~7000 fish, the latter based on the preseason run size of 274,400 sockeye. The day two harvest of sockeye was 1,400 indicating that the run was building. The total weekly sockeye harvest was comprised of 26,49,21, and 4 per cent Tahltan enhanced, Tahltan wild, Tuya, and mainstem sockeye respectively. The fishing conditions were good. Surprising, District 106 sockeye harvest dropped slightly and District 108 harvest was only average. In light of the near record harvest in District 106 in week 25 it was expected, based on average run timing, that the catches would build this week in the District. District 108 catches were expected to be better than they were based on the high harvest of sockeye in District 106 in the previous week. The Canadian harvest and c/b/d, although good, were only slightly above average, which caused some suspicion as to the veracity of the preseason estimate. The Upper Stikine fishery showed some signs of improved Chinook catches, but was still below the seasonal average. The Little Tahltan weir was installed this week; no counts were registered when on average 119 fish passed the weir by this date. The Kakwan c/c/h improved this week with the some of the best catches of the season taken, but still well below the seasonal c/c/d.

In week 27 (28 June–04 July) the fishery opening was delayed two days and started on Tuesday noon for an initial two day opening. This action was taken to provide extra time for Chinook salmon to clear the commercial fishing grounds. Once again the Chinook run size dropped. This week's estimate was 20,100 large Chinook salmon. The guideline harvest was only 121 fish. This paucity of Chinook salmon prompted a volunteer release of the Chinook that were caught in the course of this week's sockeye fishery. The sockeye guideline harvest was ~22k fish based on an inseason run size estimate of 235.5k. After a day one harvest of ~3,500 and a projected harvest of <20,000 fish, should the fishery be extended to Sunday, an extension was given for a five day fishery this week. The total week's harvest of 12,648 fish consisted of 64% Tahltan (21% enhanced), 30% Tuya, and 7% mainstem fish. The c/b/d was below average; however, the fishing conditions were characterized as poor during the latter part of the week due to rising water. A total of 308 large Chinook were caught, 148 fish were released (it was estimated that 50% of the released fish died due to handling stress). A total of 21 large Chinook were counted through the Little Tahltan weir vs a seasonal average for this date of 519 fish. The Upper Stikine fishery Chinook harvest improved again this week, but were well below the seasonal average for this date. Very poor sport fishing success was reported. The Kakwan c/c/h of 17.9 compared poorly with the seasonal average of 113 c/c/h

In week 28 (06–12 July) the fishery posted for two days. The initial model estimate for this week which was run late in week 27 was ~235,500 sockeye salmon. A second model estimate generated after one day of fishing generated a run size of 188,000 sockeye salmon including an estimate 103,000 Tahltan Lake sockeye. In light of the relatively low catches and CPUE under good fishing conditions the model estimate was abandoned in favour of assessing the run based on the inriver regression of cumulative CPUE of Tahltan Lake sockeye against total inriver run size. A similar regression was applied to the mainstem component; the Tuya component was presented as a ratio of the Tahltan run size. This estimate generated at terminal run size of 182,200 made up of 82,500 Tahltan sockeye, 36,900 Tuya sockeye, and 62,800 mainstem sockeye. (the US harvest was based on an average harvest rate of 30%). The guideline sk harvest for this week was ~6,300 sockeye. After a day one harvest of 980 fish an extension was given for a total of three days this week. The initial harvest rate for District 108 from the previous week indicated that the run strength dropped dramatically. In anticipation of a major drop in the run size estimate this week, the fishery was not extended beyond three days, even though the weekly guideline harvest showed that an additional 3,000 could be harvested. On Wednesday of the current week an error in the District 108 CPUE from week 27 was corrected to show a fairly solid sockeye return. In response, the fishery was reopened from Friday noon to Saturday noon. The total weekly harvest of 6,292 (close to the guideline harvest) consisted of 61% Tahltan (16% enhanced), 31% Tuya, and 8%

mainstem fish. The c/b/d was below average; however, the fishing conditions were characterized as only fair due to relatively high water. A total of 94 large Chinook were caught, 24 fish were released (it was estimated that 50% of the released fish died due to handling stress). A total of 838 large Chinook were counted through the Little Tahltan weir vs a seasonal average for this date of 1,437 fish. The Upper Stikine fishery Chinook catches decreased this week. Still very poor sport fishing success reported this week. The final Kakwan c/c/h of 18 compared poorly with the final seasonal average of 118 c/c/h. The Kakwan project concluded on 10 July. The sockeye harvest from the Upper Stikine fishery were very strong this week, which was a bewildering report in light of the less than stellar harvest taken in the lower Stikine River fishery. The Tahltan Lake weir was installed on 06 July.

In week 29 (12–20 July) the fishery was opened for an initial two day period. The initial run size estimate to start the fishery was 182,300 fish. After one day of fishing and a harvest of 1,300 fish the run size estimate dropped to 133,100 sockeye. The estimate was generated by averaging the SCM and the run size generated by the inriver regressions. With a run of this magnitude the guideline harvest for Tahltan dropped to zero fish and the overall guideline harvest dropped to ~500 fish. The fishery was thus held at two days ending Tuesday noon. In the mid afternoon 14 July the Tahltan weir crew reported a weir count of 5,500 fish. By day's end the count was 7,693 sockeye salmon through the weir. Fish were building with no signs of waning the next day. This cumulative weir count of 7,693 eclipsed the seasonal average on 905 fish and was the second high on record (in 1977 the cumulative count was 13,505 fish). The 15 July weir count was 1,962 fish with reports that fish were building below the weir. In light of what was reported at the weir and a projected weir count, based on early run timing at the weir, of 25k–30k sockeye (escapement goal is 24,000 fish) it was decide to once again reopen the lower Stikine commercial fishery starting at noon Friday through to Sunday noon. In addition to the late week opening the commercial fishing grounds were extended upstream to the mouth of the Flood River with the objective of catching the tail end of the Tahltan and Tuya bound sockeye possible. On average 81% of the migration exits the lower reach (border to the mouth of the Porcupine) by week 29. The total week's harvest of 5,157 consisted 46% Tahltan (18% enhanced), 30% Tuya, and 24% mainstem fish. Because it was assumed that the Tahltan escapement and First Nations fishery requirement would be met based on the current and projected Tahltan weir count, all Tahltan and Tuya sockeye could safely be harvested without concern for conservation. The management focus, by default, was the run strength and guideline harvest of mainstem sockeye. This guideline harvest was calculated at ~1700 fish; the harvest was ~1,500 sockeye. The overall c/b/d was below average and was based on harvest and effort from the fishing grounds below the Porcupine (excludes the Flood River reach). (*In retrospect, it appears that the Lower commercial fishery missed an opportunity to harvest additional Tahltan Lake sockeye in late week 26 and early week 27 when the fishery opening was reduced in week 26 and, in respect to week 27, delayed to protect the poor return of Chinook salmon. Further, it is thought that the low river velocities registered at the USGS Stikine water gauge probably resulted in an above average migration rate for returning sockeye, thus the fish exited the fishing grounds post haste*). A total of 103 large Chinook were caught, 53 fish were released (It was estimated that 50% of the released fish died due to handling stress.) A total of 1,081 large Chinook were counted through the Little Tahltan weir vs a seasonal average for this date of 3,151 fish. Only a minor number of Chinook were caught in the Upper Stikine fishery this week. The sockeye harvest from the Upper Stikine fishery dropped this week. The Tahltan Lake weir count for the week was 17,267 fish.

In week 30 (19–25 July) the fishery was opened for an initial two day period. The run size was estimated at 132,700 fish (based on averaging the SSM and the regression estimate). with a weekly guideline harvest of 1,339 mainstem sockeye. The Tahltan Lake sockeye escapement and Upper Fishery harvest were projected to be serviced in terms of escapement and harvest respectively; therefore, the management focus was trained on spawning escapement requirements for mainstem fish. The day one harvest of 483 mainstem sockeye, 456 Tahltan Lake sockeye, and 456 Tuya sockeye prompted a one day extension. The cumulative harvest of 750 mainstem sockeye after two days of fishing prompted another one day extension in order to reach the guideline harvest of 1,339 sockeye. (note: the mainstem component decreased in day two). The total week's harvest, taken under very good fishing conditions; of 6,159 sockeye salmon consisted 41% Tahltan (7% enhanced), 25% Tuya, and 34% mainstem fish. The c/b/d of mainstem fish increased from 19 fish in week 29 to 38 fish this week. The Tahltan Lake weir count totaled 22,707 this week. The Upper Stikine First Nations fishery harvest of 1,670 registered as the highest weekly harvest this season, but below the seasonal average. A total of 103 large Chinook were caught in the lower Stikine commercial fishery, 47 fish were released.

In week 31 (26 July–04 August) the fishery opened for an initial two day period. The Flood area commercial fishery originally opened in an attempt to harvest the latter portion of the Tahltan and Tuya return was closed this week because the Tahltan and Tuya stock groupings had, in general, transited the fishery. The run size increased to 133,400 (based on averaging the SSM and the regression estimate). The weekly guideline harvest of mainstem sockeye salmon was estimated at 2,100 fish The day one c/b/d of 58 mainstem sockeye was close to the seasonal average. This observation in concert with a day one total harvest of 760 mainstem fish prompted a one day extension. The total weekly harvest, taken under fair fishing conditions, of 2,676 sockeye salmon consisted of 17% Tahltan (3% enhanced), 7% Tuya, and 76% mainstem fish. The weekly c/b/d of mainstem fish decreased after day one from 58 fish to 40 fish which was below the seasonal average of 58 f/b/d. The Tahltan Lake weir count totaled 26,936 this week. The Upper Stikine First Nations fishery harvest of 749 was close to half the harvest reported the previous week. A minor number of Chinook were caught.

In week 32 (02–08 August) the fishery opened for an initial two day period. The terminal run size estimate increased to 162,300 fish. This run size was generated by the average of the model and the estimated generated by reconstruction the Tahltan run (escapement and harvest projections); the Tuya component was expressed as a ratio of the Tahltan run size; the mainstem component was based on an inriver correlation. The mainstem component increased slightly to 50,000 fish. The projected escapement was estimated to be between 25,000 and 30,000 fish and the weekly guideline harvest this week was 2,600 sockeye. The day one harvest of only 300 mainstem sockeye with a c/b/d of only 21 fish vs a seasonal average of 51 f/b/d resulted in holding the fishery at two days. It was felt that this week's estimate did not square with the poor harvest with very good fishing conditions. It should be noted, however that the c/b/d increased from 21 fish on day one to 47 fish on day two. The total weekly harvest, taken under good fishing conditions, of 1,540 sockeye salmon consisted of 36% Tahltan (1% enhanced), 2% Tuya, and 62% mainstem fish (note: unusual to see such a high contribution of Tahltan Lake sockeye in this week). The Tahltan Lake weir count totaled 28,500 this week. The Upper Stikine First Nations fishery harvest of 190 sockeye was a reflection of the both the reduced effort and the waning run size entering the fishery. A minor number of Chinook were caught.

In week 33 (09–15 August) the fishery opened for an initial three day period. The terminal run size estimate increased to 165,500 fish. This run size was generated by the average of the model and the estimated generated by reconstruction the Tahltan run (escapement and harvest projections); the Tuya component was expressed as a ratio of the Tahltan run size; the mainstem component was based on an inriver correlation. The mainstem component increased to 55,000 fish. The projected escapement was estimated to be between 25,000 and 30,000 fish and the weekly guideline harvest this week was 2,900 sockeye. Similar to the day one harvest in week 32, the low harvest of only 295 mainstem sockeye with a c/b/d of only 20 fish vs a seasonal average of 31 f/b/d resulted in holding the fishery at three days. It was felt that the harvest did not reflect this week's population estimate. The total weekly harvest, taken under very good fishing conditions, of 1,258 sockeye salmon consisted of 33% Tahltan (1% enhanced), 1% Tuya, and 65% mainstem fish (note: unusual to see such a high contribution of Tahltan Lake sockeye in this week). The Tahltan Lake weir count totaled 29,167 this week. The Upper Stikine First Nations fishery harvest of 38 fish was taken by Tahltan First Nations sampling crew; no other fishing activity was reported.

In week 34 (16–22 August) the fishery opened for an initial two day period. The terminal run size estimate decreased to 155,300 fish. This run size was generated by the average of the model and the estimated generated by reconstruction the Tahltan run (escapement and harvest projections); the Tuya component was expressed as a ratio of the Tahltan run size; the mainstem component was based on an inriver correlation. The mainstem component decreased to 54,000 fish. The projected escapement was estimated to be between 25,000 and 30,000 fish and the weekly guideline harvest this week was 1,470 sockeye. The day one harvest of 216 mainstem sockeye and a c/b/d of 20 fish, which was above the seasonal average of 11 f/b/d, prompted a two day extension. The total week's harvest, taken under fair fishing conditions, of 525 sockeye salmon consisted of 7% Tahltan (1% enhanced), 1% Tuya, and 92% mainstem fish. The Tahltan Lake weir count totaled 30,028 this week. The Upper Stikine First Nations fishery harvest of 36 fish was taken by Tahltan First Nations sampling crew; no other fishing activity was reported. The coho harvest of 658 fish tripled in size from week 33.

In week 35 (23–29 August) the fishery was opened for an initial three day period with a management focus switched from sockeye to coho. On average 91% of the sockeye return exits the fishery by this week. The sockeye run size increased to 160,500 fish and the mainstem guideline harvest was 1,100 sockeye. The number of licenses dropped from 11 to 7 this week. After two days of fish and a total harvest of 563 coho and a guideline harvest for the season of 5,000 fish it was decided to extend the fishery through till Sunday noon. The total harvest, taken under fair fishing conditions, was 1,741 coho and 375 sockeye.

In weeks 36–37 (30 Aug– 12 Sept) the fishery was opened for the entire period (14 days) with the goal of the reduced fleet (five licenses) harvesting the 5,000 coho allotment under the terms of the PSC. The total harvest, taken under fair fishing conditions, was 3,320 coho and 170 sockeye.

Upper Stikine River Commercial Fishery

A small commercial fishery has existed near Telegraph Creek on the upper Stikine River since 1975. A total of 2,476 sockeye salmon were harvested in 2009, which was above the average 776 fish (Appendix A. 9). Two non large and 29 large Chinook salmon were harvested. The non large and large Chinook salmon harvest were above average. The fishing effort of 16 boat days fished was slightly above average 14 boat days. Generally, fishery openings were based on the lower Stikine commercial fishery openings, lagged one week. The first opening, however, was concurrent with the lower fishery opening.

Aboriginal Fishery

The Stikine River aboriginal fishery, which is located near Telegraph Creek, harvested 496 large Chinook, 136 non large Chinook, 5,148 sockeye, and 4 coho salmon (Appendices A. 2, A. 9, A. 15). The harvest of large Chinook salmon was 37% below average and the sockeye salmon harvest was average. The harvest of non large Chinook salmon was 50% below average. Coho harvest relatively rare in this fishery with the average of only 1 fish caught. Run timing to the fishing grounds was approximately one week early. The fishing conditions were, in general, good.

Sport Fishery

The Stikine River salmon sport fishery targets primarily Chinook salmon and its principal fishing location is located at the mouth of the Tahltan River. Minor sport fishing activities occur in upper reaches of the Tahltan River and in some tributaries of the Iskut River, including Verrett and Craig River. The 2009 the harvest estimate was 20 large Chinook salmon, all of which were taken in the Telegraph Creek area. The fishing success was reported as very poor throughout the course of the Chinook run.

Escapement

Sockeye Salmon

A total of 30,324 sockeye salmon were counted through the Tahltan Lake weir in 2009; 15% above average (Appendix A.19). The 2009 count was approximately 27% above the escapement goal of 24,000 and 2% above the upper end of the escapement goal range of

18,000 to 30,000 fish. A total of 349 sockeye salmon was sacrificed at the weir for stock composition analysis. In addition, a total of 3,011 sockeye salmon was collected for broodstock, resulting in a spawning escapement of 27,313 sockeye salmon in Tahltan Lake. Based on the final inseason SCM model estimate of 71,000 inriver Tahltan Lake sockeye salmon, minus the inriver harvest of 24,500 fish, the escapement to Tahltan Lake was projected to be ~47,000 fish.

Based on the regression model the generates inriver Tahltan Lake sockeye salmon run size and Tahltan escapement from historical Tahltan sockeye salmon CPUE in the lower river commercial fishery against the terminal run size and Tahltan Lake weir counts, the projected count based on the final running of the estimate in week 31 was <10,000 fish. The method using a run reconstruction model whereby the weir count and inriver harvest is projected showed a projected weir count of ~24,000 sockeye.

The spawning escapements for the non-Tahltan and the Tuya stock groups are calculated using stock ID, test fishery and inriver commercial harvest data. Because the test fishery was not conducted at the outset of the sockeye return a decision was made to use the commercial fishery CPUE to assess inseason run size. Proxy test CPUE were used for week 25 and 26 to complete the total coverage of the sockeye return. The proxy figures were based on the linear relationship between the commercial CPUE and the test fishery CPUE in 1986–04. All of the weekly data sets were significantly correlated. Based on this run reconstruction approach, the final escapement estimates are 17,148 non-Tahltan and 13,226 Tuya sockeye salmon. The non-Tahltan spawning escapement estimate is below the point escapement goal of 30,000 fish and below the range of 20,000 to 40,000 fish. The near record low aerial survey count of non-Tahltan sockeye salmon followed suit. The index count of only 403 fish, observed on 12 Sept, was 55% below the average.

The existence of enhanced Tuya escapement continues to be a concern because of straying of this stock to other Stikine River tributaries. Furthermore, the injury to Tuya River sockeye salmon attempting to ascend the lower reaches of the Tuya River is evident based on reports from First Nations fishers and stock assessment personnel. (A study on the behavior of Tuya river sockeye salmon strays was conducted in August and September, 2004 and April and May 2005 and concluded that in the short term the straying of Tuya River sockeye salmon does not pose a genetic risk to natural mainstem Stikine River sockeye salmon; however, over the long term, given enough straying, an interaction/spawning of Tuya strays with natural sockeye salmon may occur.) To address problems associated with fish capture in the lower Tuya River; fishway/trapping apparatus was constructed during the spring of 2006. Unfortunately the Tuya fish trapping project was not prosecuted because of a major rock slide at the Tuya River fishing site that occurred sometime in June 2006. The rockslide rendered the fishing site, for which the fish trap was groomed for, unusable due to changes and river hydrology as well as the unsafe working conditions at the site. More rockslide activity occurred in May and June 2007 and 2008.

A steering committee, consisting of Canadian and US engineers and others visited the site in August 2007 to assess the conditions and to consider and discuss other fish capture options. The steering committee decided to proceed with a blasting plan so designed to provide fish passage around the newly formed barrier. The project was first attempted in March 2008, but was aborted due dangerous working conditions and an abnormal amount of ice at the blasting site. In late October and early November 2008 the project proceeded and succeeded to remove approximately 120 m^3 of rock from the slide area. On 23–27 July 2009 a field visit was conducted to assess the success of the 2008 blasting and to collect baseline biological samples from Tuya River sockeye. On the 23 July while enroute to camp an aerial survey was done. Although the viewing conditions were somewhat impaired due to the murky nature of the flow, an estimated 1.5k salmon was counted above the blast site; no fish were observed below the blast site. In past aerial surveys conducted after the 2006 rock slide no fish were observed above the rock slide while many fish (schools) were observed below. (It should be noted that these aerial surveys were victim of poor viewing conditions and the fish observed were in large schools that the surveyor could only identify as such. Nonetheless, the contrast with fish distribution in 2006–2008 compared to fish distribution in 2009 was evident.) In addition to the aerial survey, set gillnets were fished above and below the blast site. Sockeye, Chinook, and pink salmon were caught at both sites. The set net site located below the blast site, however, had the highest harvest, which was probably due to the quality of set net site in that it was set in a natural holding area below the blast site. Fish were also caught by angling. Four visual assessment of fish passage was conducted at the blast site. The number of salmon breaches and the number of successful attempts were recorded over a 30 minute period from 23–26 July. Of the total 396 breaches observed, 26 fish succeeded in ascending the river. Seventy-five per cent of the breaches and 73% of the successes occurred at river right section of the flow. This is the site of the original channel before the 2008 blasting project diverted a large measure of flow to river left. The attraction of this site (river right) is probably due to the 2-3 metre vertical falls and plunge pool located there. The balance of the flow was located at the blast site. The estimated velocity was measured at 3.6 metres/second, within the burst speeds of sockeye salmon (3.6 to 5.4m/s). The total distance of travel though the blast site was 11.3 metres, while the estimated slope was ~30 degrees. Fish were observed ascending the flow at this site. One fish entered the site, ascended approximately 6 metres and held in small eddy located on river left. This site was purposely blasted to create an eddy. In light of the observation articulate above it is reasonable to conclude that the 2008 blasting project succeeded in its objective which was to provide fish passage around the barrier that slid into the river in July 2006.

Work continues in the development of a weir/fish trap combination compatible with the Tuya River flow regime. A template model from a fence located in the Docee River, B.C.is being considered. An initial routing for a tote road connecting the Tuya River site to the Telegraph Creek road was surveyed in May 2009. A refined survey is slated to be done by DFO in the spring of 2010. Permitting requirements, including community meeting(s) have yet to addressed.

The second year of an experimental test fishery designed to harvest Tuya River sockeye salmon at a site on the mainstem Stikine located between the mouths of the Tahltan and Tuya rivers was conducted from 22 to 30 July. The total harvest from the test fishery was

2,145 sockeye and 37 Chinook salmon. The preliminary harvest rate on Tuya sockeye salmon was estimate at ~18% (2,145/12,011). This harvest rate assumes that all of the fish were Tuya River origin sockeye, when in fact the 2008 test fishery results showed that only half the harvest was Tuya origin fish. In the 2009 fishery, the otolith analyses was 71% Tuya, 22% Tahltan, and 5% non Tahltan. It should be noted that the fishing conditions are very challenging due to high river velocities. It is highly recommended that fishing at this test fish site be limited to persons with extensive experience in both net fishing and river navigation.

Chinook Salmon

The 2009 Chinook salmon escapement enumerated at the Little Tahltan weir was 2,245 large fish and 99 non large Chinook salmon (Appendix A.21). The escapement of large Chinook salmon in the Little Tahltan River was 65% below average and 23% below the MSY escapement goal for this stock of 3,300 large Chinook salmon. The weir count was also below the low end of the escapement goal range of 2,700 to 5,300 large fish.

A mark–recapture study was conducted again in 2009 concurrent with the SCMM to assess the inriver Chinook salmon abundance. Inseason mark-capture estimates were calculated weekly post week 23 (week ending June 09). The final postseason estimate of inriver run, based on tag recoveries in the commercial fishery was 15,118 large Chinook salmon, 63% below the average run size of 57,300. The estimated escapement of 12,803 was 35% below the escapement goal of 17,400 large Chinook salmon. The escapement to the Little Tahltan River represented approximately 20% of the total Stikine River escapement. The percentage is slightly above average Little Tahltan contribution of approximately 18%.

Stikine River Chinook salmon run timing to the Lower Stikine commercial fishing grounds was thought to be close to normal, although the sporadic commercial fishery openings did not provide a precise measure of run timing. Fish arriving at the Little Tahltan weir were one week late. Verrett Creek escapements counts were judged as weak, but an improvement from the 2008 return, as reported by the carcass pitch crew stationed at the creek from 05–10 August. The Verrett Creek project is primarily a study to collect spaghetti tags; not so to assess escapement numbers. A below average run of Shakes Creek Chinook salmon was also reported by residents living at the creek mouth.

Coho Salmon

Aerial surveys of four index sites were conducted on 02 November. The combined count of 2,275 coho salmon, under good viewing conditions, was 42% below the average 3,927 coho salmon. All, but the Craig River index site, had showings that were average to above average in spawning coho.

A coho salmon drift gillnet test fishery was conducted from 04 Sept to 13 October 2009. The total harvest was 287 coho, 1 sockeye and 12 steelhead trout taken in 463 drift fishing events. Each event was approximately 10-15 minutes in length. Net dimension were constant at 33 metres (100') , 150cm (5.5 ") mesh, by 30 meshes deep. The total cum weekly CPUE (harvest per drift) was 5.1 fish vs. the average 5.4 fish. This test fishery has been operated a various levels of vigour since 1986 through to 2008. (Funding in 2007 was not granted.)

Sockeye Salmon Run Reconstruction

The final postseason estimate of the terminal Stikine River sockeye salmon run size is approximately 185,276. Of this number, approximately 98,092 were of Tahltan Lake origin (wild & enhanced), 45,798 were of Tuya origin (fry from Tahltan broodstock planted into Tuya Lake), and 41,385 were mainstem stocks (Table 3). These estimates are based otolith recovery and analysis and scale pattern analysis in the U.S. Districts 106 and 108 harvest; otolith analysis, egg diameter stock composition estimates for inriver harvest from the Canadian commercial, aboriginal, ESSR, and test fishery harvest; and escapement data. Analysis of the CPUE data from the commercial and test fisheries indicate a range in escapement estimates. The 2009 terminal run was below average and well below the preseason forecast of 274,400 fish.

TAKU RIVER

Taku River salmon are harvested in the U.S. gillnet fishery in the Alaskan District 111, in the northern Southeast Alaska seine and troll fisheries, in the Juneau area sport fishery, and in the inriver personal use fishery (Figure 2). Canadian fisheries for Taku River salmon include a commercial gillnet fishery located in the river near the Canada/U.S. border, an aboriginal fishery, and a sport fishery.

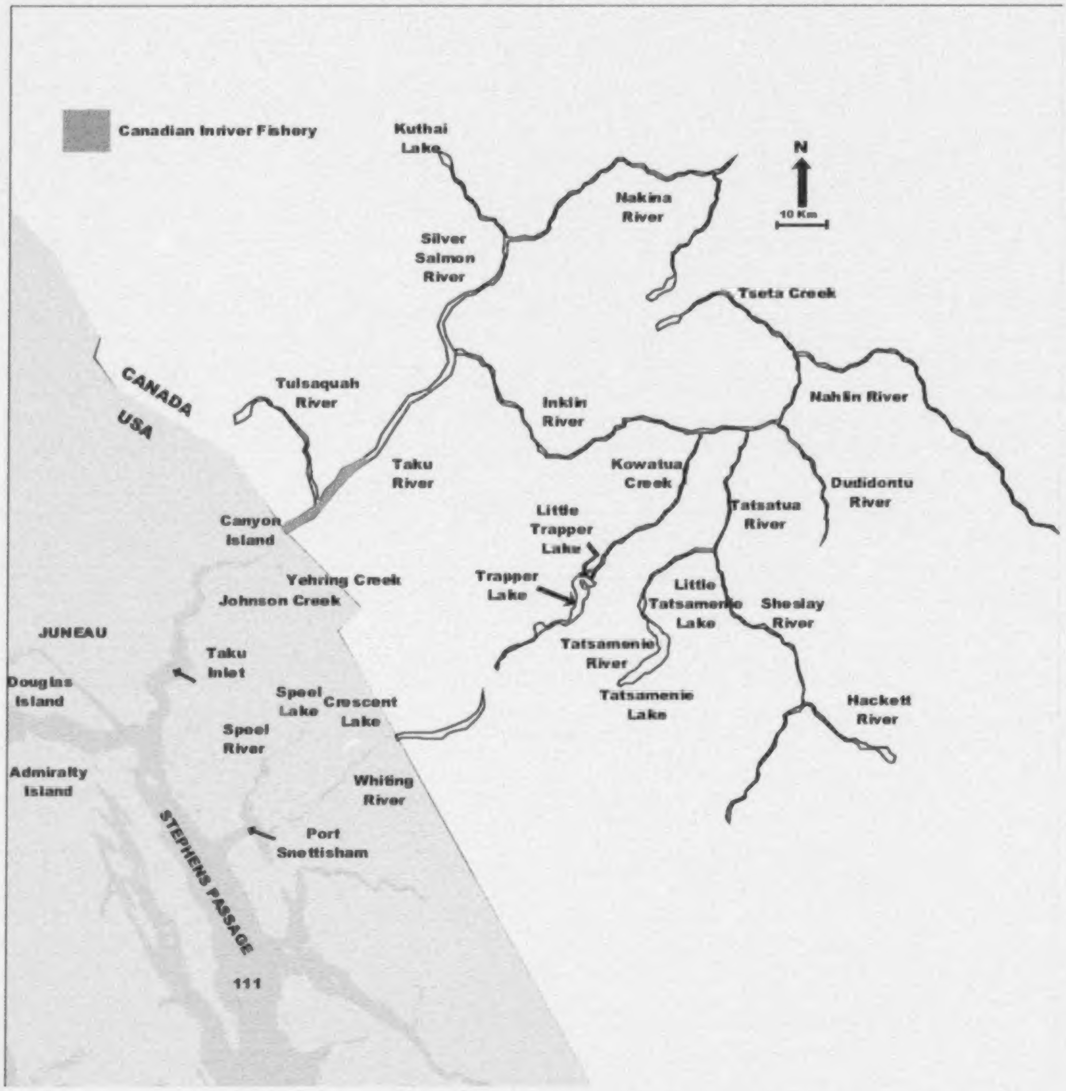

Figure 2. The Taku River and principal U.S. and Canadian fishing areas.

Harvest Regulations

New fishing arrangements were in place in 1999 as a result of negotiations between Canada and the United States of Annex IV, Chapter 1 of the Pacific Salmon Treaty. As with the fishery regimes for the Stikine River, details of the February 2005 agreement including harvest sharing provisions as well as the fishery regimes adopted in 1999 are included in the Transboundary Annex (Annex IV) of the Pacific Salmon Treaty and can be found at: http://www.psc.org/pubs/treaty.pdf.

Negotiations between Canada and the United States held in Portland, Oregon in January 2008 to replace expired portions of Annex IV, Chapter 1 of the Pacific Salmon Treaty resulted in arrangements for Taku River salmon which are expected to be in place through 2018. These include the continuation of directed fisheries for Taku River Chinook salmon stocks, first implemented in 2005; continuation of coho harvest shares; and, a sockeye harvest sharing arrangement based on the production of enhanced fish. Details of the January 2008 agreement including harvest sharing provisions have been incorporated into the Transboundary Annex (Annex IV) of the Pacific Salmon Treaty and can be found at: http://www.psc.org/pubs/treaty.pdf.

U.S. Fisheries

The traditional District 111 commercial drift gillnet salmon fishery was open for a total of 62 days from May 11 through October 15, 2009 (Appendix C.9). The harvest totaled 6,800 Chinook, 62,070 sockeye, 36,615 coho, 56,801 pink, and 918,350 chum salmon (Appendix C.1, C.3, C.7, D.1). Harvests of Chinook, coho, and chum salmon were above average, and the harvest of sockeye and pink salmon were below average.

Hatchery stocks contributed significantly to the numbers of both sockeye and chum salmon harvested and minor numbers to the harvest of other species. The 2009 season was the tenth year of significant numbers of adult sockeye salmon returning to the Snettisham Hatchery inside Port Snettisham. These fish contributed significantly to the harvests primarily in Stephens Passage. The Speel Arm Special Harvest Area (SHA) inside Port Snettisham was not opened to common property fishing in 2009.

A bilateral review of the escapement goal for large Taku Chinook salmon completed in early 2009 resulted in a revised escapement goal range of 19,000 to 36,000 fish. This along with the preseason terminal run estimate of 50,164 large Taku Chinook allowed for directed Chinook fisheries in District 111 in 2009. The total 2009 traditional drift gillnet Chinook salmon harvest in District 111 was 6,800 fish. Preliminary coded wire tag (CWT) analysis indicates Alaskan hatchery Chinook salmon contributed at least 756 fish, or 11% of the total 2009 District 111 Chinook salmon harvest. The final harvest estimate of Taku Chinook salmon was 5,309 (estimate was based on GSI). The final spawning escapement estimate for Taku River Chinook salmon run was 22,761 large Chinook, within the new escapement goal range of 19,000-36,000 fish.

The traditional District 111 sockeye salmon harvest was 62,070 fish; 38% of the average (Appendix D.6). Weekly sockeye salmon harvests and CPUE were below average during all weeks in 2009. Domestic hatchery sockeye salmon stocks began to contribute to the traditional fishery in SW27 and added significant numbers to the harvests in week 29–33 (Appendix C.4). Fishermen targeting these runs of hatchery sockeye salmon and the Limestone Inlet hatchery chum salmon increased the amount and percentage of fishing effort that occurred in Stephens Passage. Of the total traditional District 111 sockeye salmon harvest, 26% occurred in Stephens Passage, the average is 28%. The contributions of wild Taku River and Port Snettisham thermally marked sockeye salmon from fry plants was estimated inseason from analysis of otoliths and postseason from scale pattern analysis. The final estimated stock composition of the harvest of sockeye salmon in the traditional district was 35,361 (57%) wild Taku River, 6,796 (11%) enhanced Tatsamenie, 8,674 (14%) wild Port Snettisham, and 17,888 U.S. Domestic hatchery fish (mostly Snettisham; Appendices C.4). Due to lower than anticipated returns of wild and enhanced Port Snettisham sockeye salmon, Port Snettisham and the Speel Arm SHA were not opened during the common property fishery in 2009.

The traditional District 111 chum salmon harvest of 918,350 fish was well above the average 370,600 fish (Appendix d.1). The summer chum salmon harvest of 915,100 fish was 99.7% of the season's total chum salmon harvest. The summer chum salmon run is considered to last through mid-August (week 33) and was comprised mostly of domestic hatchery fish, with small numbers of wild fish contributing to the harvest. Chum salmon runs to DIPAC hatcheries in Gastineau Channel and to the DIPAC remote release site in Limestone Inlet contributed a major portion of the harvest but quantitative contribution estimates were not available. Approximately 62% of the total traditional District 111 chum salmon harvest was made in Taku Inlet, 38% in Stephens Passage. The harvest of 3,100 fall chum salmon, SW34 and later, was below the average 4,200 fall chum salmon. Most of these chum salmon are assumed to be wild fish of Taku and Whiting Rivers origin.

The District 111 pink salmon harvest of 56,800 fish was below average. (Appendix D.1).

Coho salmon stocks harvested in District 111 include runs to the Taku River, Port Snettisham, Stephens Passage, and local Juneau area streams as well as Alaskan hatcheries. The traditional District 111 coho salmon harvest of 36,615 fish was above average (Appendix D.1). CWT analyses indicate Alaskan hatchery coho salmon contributed 33 fish or 0.1% of the traditional District 111 harvest.

Table 4. Taku sockeye salmon run reconstruction, 2009. Estimates do not include spawning escapements below the U.S./Canada border.

	Taku			Snettisham Stocks		
	Total	Wild	Enhanced	Total	Wild	Enhanced
Escapement	71,837	71,484	353			
Canadian Harvest						
Commercial	10,980	10,875	105			
Food Fishery	106	105	1			
Total	11,086	10,980	106			
Test Fishery harvest	174	172	2			
Above Border Run	83,097	82,636	461			
U.S. Harvest a						
District 111	35,361	35,121	240	26,562	8,674	17,888
Personal Use	871	863	8			
Total	36,232	35,984	248			
Test Fishery harvest	0					
Terminal Run	119,329	118,620	709			

		Total	Wild
	Terminal Run	119,329	118,620
	Escapement Goal	75,000	75,000
	AC	44,329	43,620
Canada			
	Harvest Share	20%	20%
	Base Allowable	8,866	8,724
	Surplus Allowable	0	0
	Canada AC	8,866	8,724
	Actual harvest	11,086	10,980
U.S.			
	Harvest Share	80%	80%
	US AC	35,463	34,896
	Actual harvest	36,232	35,984

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[a] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for harvest other than the listed fisheries.

The pre-season terminal run forecast of 50,164 large Taku River Chinook salmon allowed for directed Chinook fisheries in District 11 beginning the first Monday in May with a US Allowed Catch (AC) of 8,257 fish in addition to the 3,500 fish Base Level Catch (BLC) to be shared amongst the sport, troll, and drift gillnet fisheries. Due to the limited Chinook AC, the first opening of the gillnet season was postponed until the second Monday in May, and the fishery opened for one day in week 20 with the north line of the district pulled south to the latitude of Jaw Point. A fleet of 45 boats harvested 613 fish, of which 536 were large Taku Chinook. Previous directed Chinook fisheries occurred only in 2005 and 2006. The 2005 fishery had different gear restrictions, and previous seasons both were managed for a higher escapement goal range, so there is limited historical data with which to meaningfully compare this season with previous ones. In week 21 the fishery was again open for one day in the same reduced area and 43 boats harvested 290 fish, of which 228 were large Taku Chinook. The first inseason run estimate was generated and projected a terminal run of 47,510 large Taku Chinook, close to the preseason forecast and providing a US AC of 7,781 fish.

In week 22 the fishery was opened for one day beginning on Tuesday due to the Memorial Day holiday and to normal markers due to low over all harvest and adequate inriver indicators. Staff on the grounds monitoring the opening extended the fishery an additional day based on good fishery harvest rates, the inseason estimate being close to the preseason estimate, and adequate available AC. In week 22, 55 boats harvested 1,627 fish, of which 1,373 were large Taku Chinook salmon. The inseason estimate generated in week 22 projected a terminal run of 50,043 large Chinook salmon resulting in a US AC of 9,638 fish.

In week 23 the fishery was opened for one day, and again extended by staff on the grounds based on good harvest rates, consistent inseason estimates to this point, and available AC. In week 23, 64 boats harvested 1,909 fish, of which 1,591 were large Taku Chinook. The third inseason estimate generated in week 23 post fishery projected a terminal run of 39,994 large Taku Chinook, significantly reducing the US AC to 2,266 fish. The 20% decline in terminal run projection resulted in a 76% reduction of US AC.

In week 24 the fishery was opened for one day and 64 boats harvested 858 fish, 702 of which were large Taku Chinook salmon. The fourth inseason estimate projected a terminal run of 37,361 large Taku Chinook, and a further reduction in US AC to 338 fish. Due to the significant drop in the inseason run strength estimate, there was no directed Chinook salmon fishery in week 25. Management emphasis for the District 11 drift gillnet fishery shifted to sockeye salmon beginning in week 26, but the bilaterally agreed upon Chinook salmon accounting period extends through week 28.

Management actions to conduct the Taku River directed sockeye salmon drift gillnet fishery were limited to imposing restrictions in time, area, and gear. Because there is no bi-laterally agreed forecast for Taku River sockeye salmon, early season management of the District 111 fishery is based on fishery CPUE and Canyon Island fish wheel catches. As the fishing season progresses sufficient data is acquired to estimate the inriver run size from the mark-recapture program at Canyon Island and to use that estimate in conjunction with migratory timing and historical fishery harvest data to forecast the entire Taku sockeye salmon run. In the first week of sockeye management (week 26), which began June 21, Section 11B was open for 3 days with the northern boundary restricted to the latitude of Jaw Point and a 6-inch maximum mesh restriction imposed to conserve for Chinook salmon. Fifty-nine boats harvested 685 Chinook salmon of which 253 were large Taku fish. The sockeye salmon harvest was 50% and the sockeye CPUE was 57% of average. The first weekly sockeye inriver run estimate projected an inriver run of 117,300 fish (Table 5).

In 27, Section 11B was open for three days, with Taku Inlet again closed north of Jaw Point and the 6 inch maximum mesh requirement. 56 boats harvested 417 Chinook of which 64 were large Taku Chinook. The sockeye harvest was 30% and the sockeye CPUE was 55% of average. The weekly estimate projected an inriver run of 116,800 sockeye.

Table 5. U.S. inseason forecasts of terminal run size, TAC, inriver run size, and the U.S. harvest of Taku River sockeye salmon for 2009.

Stat Week	Above border Run	Terminal Run[a]	Total TAC	U.S. TAC	Projected U.S. Harvest
28	112,885	147,641	72,641	58,113	14,528
29	135520	179169	104,169	83,335	20,834
30	88252	131587	56,587	45,270	11,317
31	71847	113846	38,846	31,077	7,769
32	79853	125960	50,960	40,768	10,192
33	83949	123642	48,642	38,914	9,728
Postseason	83,097	119,329	44,329	35,463	36,232

[a] Terminal run does not include any marine harvest of Taku River salmon that might occur outside of District 111.

Fishing time for week 28 was set for two days in Taku Inlet due to weak inriver indicators, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Limestone Inlet was opened concurrent with Stephens Passage to provide access to enhanced DIPAC chum salmon returning to this remote release site. Effort increased to 100 boats and 160 Chinook were harvested, none of which were large Taku fish. The total gillnet harvest of large Taku Chinook salmon for the directed Chinook fishery accounting period, weeks 20–28 was 4,748 fish. Sockeye harvest and CPUE were respectively 38% and 43% of the average. The weekly estimate projected an inriver run of 112,900 sockeye. The Section 11B chum salmon harvest increased dramatically from the previous weeks 70% to 303% of the average.

Fishing time for week 29 was again set for two days in Taku Inlet, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Effort increased to 158 boats and sockeye harvest and CPUE were 66% and 51% of average. Analysis of otoliths revealed that 18% of the sockeye salmon harvest from Taku Inlet and 51% from Stephens Passage during this week were of DIPAC Snettisham hatchery origin. TBR enhanced sockeye salmon of Tatsamenie Lake origin contributed 0.8% of the harvest in Taku Inlet this week. The weekly estimate projected an inriver run of 130,500 sockeye. The Section 11B chum salmon harvest increased to 451% of average.

Fishing time for week 30 was set for two days in Taku Inlet, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Although the two days in Taku Inlet was due to overall Taku sockeye levels, it had been bilaterally agreed preseason to hold time in Taku Inlet to two days during weeks 30 through 32 to conserve for Tatsamenie origin sockeye, which were expected to have a poor return this season. Effort peaked for the season at 178 boats with sockeye harvest and CPUE of 52% and 37% of average. Otolith analysis revealed that 24% from Taku Inlet and 53% of the sockeye salmon harvest from Stephens Passage during this week were of DIPAC Snettisham hatchery origin. TBR enhanced Tatsamenie Lake origin sockeye salmon contributed 0.8% to Taku Inlet and 0.8% to Stephens Passage harvests. The weekly sockeye estimate projected an inriver run of 95,000 fish. The Section 11B chum salmon harvest was 190% of average.

Fishing time for week 31 was set for two days in Taku Inlet, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Effort was 89 boats and sockeye harvest and CPUE were 42% and 62% of average. Otolith analysis revealed that 25% of the sockeye salmon harvest from Taku Inlet and 53% from Stephens Passage during this week were of DIPAC Snettisham hatchery origin , and 0.3% of the harvest from Taku Inlet were of TBR enhanced Tatsamenie Lake origin. The weekly sockeye estimate projected an inriver run of 63,300 fish, possibly skewed low due to flood conditions and mechanical issues with the fishwheels. The Section 11B chum salmon harvest was 179% of average.

Fishing time for week 32 was set for two days in Taku Inlet, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Effort was 79 boats and sockeye harvest and CPUE were 26% and 45% of average. Otolith analysis indicated that 47% of the sockeye salmon harvest from Taku Inlet and 64% of the harvest from Stephen's Passage were of DIPAC Snettisham hatchery origin. The weekly sockeye estimate projected an escapement of 70,100 fish. The Section 11B chum salmon harvest was 167% of average.

Fishing time for week 33 was set for two days in Section 11B due to poor sockeye numbers, with the six-inch mesh restriction south of Circle Point removed. Effort was 59 boats and the sockeye harvest and CPUE were 19% and 45% of average. Otolith analysis indicated 49% of the harvest from Taku Inlet was of DIPAC Snettisham hatchery origin. The weekly sockeye estimate projected an escapement of 75,000 fish. The Section 11B chum salmon harvest was 225% of average.

The fall drift gillnet season in District 111 lasted nine weeks, beginning on August 17 in week 34, and lasting until October 15 in week 42, During this time management focus switches from sockeye to coho salmon abundance Fishing time in Section 11B during week 34 was held to two days due to overall poor sockeye returns, and the opening was delayed until Monday August 17th to accommodate the Golden North Salmon Derby taking place in Juneau area waters. Section 11C was opened for two days due to adequate pink returns to mainland systems. The coho salmon harvest was 43% of average, and the CPUE was 207% of average.

Fishing time in Sections 11B and 11C was set for 3 days in week 35, with coho salmon harvest and CPUE 128% and 94% of average. The first inseason coho estimate projected and inriver run of 138,000 fish, exceeding the preseason forecast of 100,000 coho salmon.

Fishing time in Section 11B was set for three days in week 36 and coho harvest and CPUE were 266% and 172% of average. The second inseason coho estimate projected an inriver run of 107,000 fish, with 50,000 coho past all fisheries, exceeding the 38,000 PST minimum escapements. Based on good coho harvest in the D11 fishery, being past the peak period of wild fall chum presence, and continued strong inseason coho estimates, openings of four days per week were held for the remainder of the season. The District 11 sockeye salmon harvest for the weeks 34–42 was 17% of average. The coho salmon harvest in weeks 37–42 was average. The final inseason coho estimate was for 113,700 fish inriver, with an escapement past all fisheries of 104,300 fish. The fall chum salmon harvest in weeks 34–42 was 74% of average. Escapement numbers for Taku River chum salmon are unknown, however the numbers of fall chum passing through the fish wheels at Canyon Island were used as an index of escapement. The index number for 2009, 236 chum salmon was 72% of average. The District 11 common property drift gillnet pink salmon harvest of 56,400 fish was 50% of average. The escapement number to the Taku River was unknown; however the number of pink salmon passing through the fish wheels at Canyon Island was used as an index of escapement. The total of 9,234 pink salmon caught in the fish wheels was 74% of the 2007 parent-year and was 60% the odd-year average. The District 11 drift gillnet fishery closed on October 15 in week 42.

Several other fisheries in the Juneau area harvested transboundary Taku River salmon stocks in 2009. Personal use permits were used to harvest an estimated 871 Taku River sockeye salmon. In 2009, an estimated 3,299 Chinook salmon were harvested by sport fisheries in the Juneau area. A number of stocks are known to contribute to the Juneau area sport fishery, including those from the Taku, Chilkat, and King Salmon rivers, and local hatchery stocks, but the major contributor of large, wild mature fish was believed to be the Taku River. Of the Chinook salmon harvested 673 fish were estimated to be of Taku River origin based on GSI analysis. A purse seine test fishery was conducted each Friday from SW26 through SW29 between Hawk Inlet and Point Retreat, the results indicated average to above average abundance of pink salmon. In July, portions of the Hawk Inlet shoreline were opened six times to the commercial purse seine pink salmon fishery in Chatham Strait in accordance with the northern southeast seine fishery management plan. Approximately 2.5 million pink salmon were harvested along the portion of west Admiralty Island shoreline extending from Pt Hepburn north to the latitude of Point Couverden. A large number of stocks, including the Taku River, contribute to this pink salmon directed fishery.

Canadian Fisheries

The Taku River commercial fishery harvest was 6,759 large Chinook, 1,137 small Chinook salmon ,10,980 sockeye, and 5,649 coho, in 2009 (Appendix C.2, C.5, C. 8). An additional 174 sockeye and 3,963 coho were taken in a test fishery which was conducted during the latter part of the fishing season. The sockeye salmon harvest was 58% below average. Sockeye salmon originating from Taku fry plants contributed an estimated 105 fish to the harvest, comprising less than 1% of the total harvest. The harvest of coho salmon was 14% above the average. The harvest of large Chinook salmon was 2.6 times average (Appendix D.5). In 2005, as a result of the new Chinook salmon agreement which allows directed Chinook salmon fishing if abundance warrants, harvest accounting for small salmon was revised from a commercial weight-based designation (previously referred to "non larges" which were typically fish under 2.5 kg or 5 kg, depending on where they were being marketed), to a length-based designation (small Chinook salmon i.e. less than 660 mm in length from the middle of the eye to fork-of-tail (MEF)). Hence, comparisons with harvest from previous years should be noted accordingly. There were 98 days of fishing; this was 2.0 times average. The seasonal fishing effort of 454 boat days was 26% above average. As in recent years, both set and drift gillnets were used with the majority of the harvest taken in drift gillnets. The maximum allowable mesh size was 20.4 cm (8.0 inches) until June 21 at which point it was reduced to 14.0 cm (5.5 inches) in order to minimise incidental harvest of Chinook salmon.

In addition to the commercial harvest , 172 Chinook, 106 sockeye, and 154 coho salmon were harvested in the aboriginal fishery in 2009. The harvest in the Taku Aboriginal fishery have averaged 167 Chinook, 188 sockeye, and 355 coho salmon and two steelhead.

Recreational harvest figures are not available, but is assumed that about 105 large chinook were retained in this fishery. The harvest of other species are believed to be have been negligible.

As noted, a test fishery to capture coho salmon for stock assessment purposes took place during the latter part of the fishing season, specifically from August 23 through October 8 (weeks 35–41), and landed 3,963 coho and 174 sockeye salmon.

The bilateral preseason Chinook salmon forecast, based on sibling relationships, was for a terminal run of 50,164 fish, 7% above the average run of approximately 46,700 fish. At a run size of this magnitude, factoring in the revised MSY escapement point target of 25,500 fish the allowable catch (AC) was 18,264 fish, with 8,357 fish (47% of total) allocated to Canada and 9,727 fish (53% of total) allocated to the US. Adding the base level catches (BLCs) of 1,500 fish for Canada and 3,500 fish for the US meant that that total allowable catch (TAC) was 23,264 fish.

For the chinook fishery, guideline harvests were developed each week to guide management decisions so that: a) the harvest was consistent with conservation and Treaty goals; and b) management was responsive to changes in projections of abundance, i.e. abundance-based. The guidelines were based on joint Canada/US run assessments, using mark recapture estimates, plus D11 harvests through the previous week; the sum was then expanded by historical run timing, which was assumed to be average, unless otherwise agreed to by managers of both parties. Management of the chinook fishery was predicated upon weekly guidelines, to avoid overharvesting specific components of the run. Base level catches were not used in calculation of weekly guidelines, rather they were set aside for Aboriginal, recreational and directed sockeye fisheries.

Licences conditions were similar to the 2008 conditions except that the net length increase permited for drift-nets (from 100 to 120 feet) was extended to set-nets.

The chinook commercial fishery was scheduled to commence on April 26 (week 18), fishing conditions permitting, i.e. provided that there was sufficient open water. As per the agreement, the preseason forecast was used to calculate the allowable harvest and guide weekly management actions for the first three weeks of the season, i.e. through week 21. Thereafter, inseason bilateral run projections were used (Table 4). The following presents management actions on a weekly basis, along with inseason estimates of run sizes, and weekly guideline catches versus actual catches.

Due to a lack of open water, the opening of the fishery was delayed until Wednesday, April 29, i.e. noon on day four of week 18. The guideline harvest for this week was 412 fish. The opening was initially posted for two days and was extended two more to the end of the week. Only two licences fished for the first three days; they were joined by one more for day seven. Fishing was hampered by ice and snags and the harvest was only 86 fish, well below the guideline. Based on the gauge in the canyon, the river level rose approximately five feet over the course of the week.

Week 19 (starting May 3) was also posted for two days, with a weekly guideline of 949 fish. The harvest for day one was only 43 fish and extension of two days was posted. By day 4, the harvest was still well below the guideline and the fishery was extended to the end of the week. At this time river level began to drop slightly and harvest rates almost doubled on day 7. The weekly average harvest per unit effort (CPUE) of 28 fish per boat day (fbd) was close to the 2005–2006 average of 30. The weekly harvest was 589 chinook, with 3 licences fishing.

Week 20 (starting May 10) was posted for four days, with a weekly guideline of 1,245 fish. River level dropped slightly over the course of the week to slightly above average. By the close of day 3, about 800 fish had been harvested and the fishery was extended two days. The CPUE was well above average this week (64 versus 43 fbd), peaking on day 6. The weekly harvest was 1,781 fish. In contrast with the first two weeks of the fishery which were below guideline by a combined total of 686 fish, week 20 harvest was above guideline by 536 fish. Five licences fished in week 20.

The guideline for week 21 (starting May 17) was 1,512 fish. An initial posting of three days was announced. Due to room in the guideline, the fishery was extended one day and then an additional two days. River levels were relatively stable initially but began to increase dramatically after day 3. CPUE was down from week 20, and but still well above average (44 versus 26 fbd). The weekly harvest was 1,452 fish, with effort levels similar to week 20.

The first Canada/US joint inseason run size projection was made after day 3 of the week 21 opening. It was estimated, based on mark-recapture data that 14,519 fish had passed the international border, and 920 fish had been harvested in the U.S sport fishery through week 20. This was expanded using average run timing at Canyon Island (32%) to give a terminal run size projection of 47,510, close to the preseason forecast of 50,164.

Based on this run projection, the guideline for week 22 (starting May 24) was 1,280 fish. An initial posting of three days was announced. Water levels continued to increase and by the close of day 2 the harvest was only 154 fish and effort was decreasing due to poor fishing conditions. The fishery was extended to the end to the week in two day increments. Fortunately river levels began to drop and catches picked up. The weekly harvest was 657 fish, with the CPUE of 22 fbd below the average of 29 fbd. Daily effort averaged 4 boats.

The joint run assessment made in week 22 projected a run of 50,043 fish, up slightly for the first projection and almost identical to the preseason forecast. Based on this, the guideline for week 23 (starting May 31) was 1,187 fish, and an initial posting of 3 days was announced. River levels began to increase significantly early in the week and the fishery was extended by one day. The joint run projection made after day 3 was much lower than the pre-week projection (39,994 versus 50,043) and the fishery was not extended further. The weekly harvest was 789 fish, with an average of 8 boats fishing. CPUE was average, at 25 fbd.

Based on the week 23 run size projection, the guideline for week 24 (starting June 7) was 770 fish. An opening of three days was posted; by the start of the fishery the level gauge in the canyon was reading over 12 feet, i.e. flood level. With a guideline balance of 672 fish after 2 days the fishery was extended to the end of the week in 2-day increments. The weekly harvest was only 243 fish, with an average of 4 licences fishing. The CPUE of 9 fbd was well below the average of 23 fbd.

The week 24 run assessment resulted in another decrease in the projection, to 37,361 fish. This reduced the AC to 5,123 fish, and the cumulative harvest at the time of posting for week 25 was 5,532. It was felt however, that the recent flood conditions may have held the fish up slightly and the run projection might improve in week 25. Consequently the fishery was opened for two days. Unfortunately, there was no evidence of a pulse of fish, as CPUE remained relatively low even while river levels dropped. Therefore, the fishery was not extended beyond 2 days. The weekly harvest was 364 fish, with a CPUE 17 fbd below the average of 23 fbd. Effort was up significantly this week with an average of 11 licences fishing. The cumulative harvest at the close of the directed fishery was 5,961 fish, approximately 838 fish over the AC identified going into the week.

Table 6. Forecasts of terminal run size, allowable catch (AC), and weekly guideline, and actual harvest of Taku Chinook salmon, 2009[a].

Stat Week	Terminal Run	Canada BLC[a]	Weekly Guideline	Weekly Harvest	Cum. Harvest
17	50,164	18,264	8,537	40	0
18	50,164	18,264	8,537	412	86
19	50,164	18,264	8,537	949	589
20	50,164	18,264	8,537	1,245	1,781
21	50,164	18,264	8,537	1,512	1,452
22	47,510	15,610	7,829	1,280	657
23	50,043	18,143	8,505	1,187	789
24	39,994	8,094	5,825	770	243
25	37,361	5,461	5,123	397	364

[a] Inseason terminal run projections are as per approximately day 3 of the previous week.

The preseason outlook for Taku River coho salmon in 2009 was for an average run. Based on catch rates in the Taku River CWT program, an estimated 2.0 million coho smolt emigrated during the spring of 2008, with survivals to return as adults in 2009. Using a marine survival rate similar to the average (8.5%), a terminal run of 170,00 was expected in 2009, similar to the average run size of 189,700 fish. Using average US exploitation rates (39%), this translated to a border escapement of approximately 104,900 fish. For reference, the 2008 outmigration experienced 8.1% marine survival, and an exploitation rate of 45%.

Week 34 (starting August 16) was opened on 2 days. However, high river levels hampered fishing efforts and the fishery was extended to six days in 1- and 2-day increments. The weekly harvest was 1,244 coho with only 4 licenses fishing. The CPUE was 56, below the average of 77.

For weeks 35–37, effort was only two licenses. The fishery was opened initially for 3 days then extended to 7 days for each of these weeks. Run assessments made during this time projected border escapements of over 100,000 fish. After this time, effort dropped even further and the fishery was opened for seven days for each of weeks 38 and 39 and then through day 5 of week 42 (i.e. noon October 8). The season total commercial coho harvest was 5,649 fish.

In order to ensure that the run assessments continued for the majority of the coho run, a test fishery was conducted, starting on August 23 (week 35) and continuing through October 8 (week 41). This fishery landed 3,963 coho and 174 sockeye salmon.

The final postseason coho mark-recapture estimate indicates that 113,716 fish reached the border. As per the new PST provisions, the Canadian allowable catch after week 33 was 10,000 coho plus surplus escapement. The actual treaty harvest was 7,387 fish. This includes the commercial harvest taken after week 33 (3,270 fish), the test fishery harvest of 3,963 fish, plus the Aboriginal fishery harvest of 154 fish; it is assumed that the recreational harvest of coho was zero. Subtracting the total inriver harvest of 9,766 fish from the border passage translates to a spawning escapement estimate of 103,950 fish, well above the upper end of the escapement goal range of 27,500 to 35,000 fish. The cumulative commercial coho CPUE through week 34 was 188 fbd, 53% above the average of 123 fbd.

Escapement

Sockeye Salmon

Spawning escapement of sockeye salmon into the Canadian portion of the Taku River drainage is estimated from the joint Canada/US mark-recapture program. Counting weirs operated by DFO at Little Trapper and Tatsamenie lakes and by the TRTFN at Kuthai and King Salmon lakes provide some information on the distribution and abundance of discrete spawning stocks within the watershed.

The sockeye mark-recapture program has been operated annually since 1984 to estimate the above-border run size (i.e., border escapement); spawning escapement is then estimated by subtracting the inriver harvest. The final postseason estimate of the border run in 2009 is 83,097; subtracting the inriver harvest of 11,086 fish (10,980 commercial, 106 Aboriginal and 174 test) indicates that 71,837 sockeye reached the spawning grounds. This spawning escapement is 35% below average (Appendix D.9), but within the interim escapement goal range of 71,000 to 80,000 sockeye salmon. The Canyon Island fishwheel harvest of 3,489 sockeye salmon was 40% below average.

The sockeye count through the Kuthai Lake weir was 1,442 fish; counts during the last four years have been the lowest on record, although there have been several instances of counts close to 1,500. The 2009 count was 65% below average and 9% below the primary brood year escapement of 1,578 fish (Appendix D.15). The fish were about nine days late arriving at the weir and the run mid-point (July 24) was about three days earlier than average.

A weir was operated at King Salmon Lake for the seventh consecutive season. However, only 54 fish were enumerated; it is believed that the majority of the escapement passed undetected. Counts for 2004–2008 have averaged 2,417 fish (the 2002 count is based on a boat survey as only a partial weir count was obtained that year while the 2005 count is excluded as only 5 fish were enumerated, with many more observed in the lake after weir removal).

The Little Trapper Lake weir count of 5,552 was 56% below average and 58% below the primary brood year escapement of 9,613 fish (Appendix D.15). The run was about nine days late arriving, however, the mid-point was only three days later than average (August 11 versus August 8). One hundred nine fish were held for artificial spawning; details are presented in the enhancement section of this report.

The Tatsamenie Lake weir count of 2,032 was 77% below average and just above the primary brood year count of 1,951. The management target of at least 6,600 sockeye (established in order to meet the broodstock collection target of 4 million eggs) was not met. The fish arrived at the lake approximately one week late; however the mid-point of

September 1 was one day earlier than average. Approximately 740 fish were held for artificial spawning.

Chinook Salmon

Spawning escapement of Chinook salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/US mark-recapture program. Tag application took place from April 30 through July 25. Tag recovery effort consisted of the commercial fishery from April 29 through June 20 (weeks 18–24), the sockeye and coho commercial/test fisheries (weeks 26–34), and spawning ground sampling in August and September on the Nakina, Tatsatua, Kowatua, Nahlin, Dudidontu, rivers as well as Tseta and Yeth creeks. The number of tags recovered on the spawning grounds was very low, hence the preliminary postseason estimates of border and spawning escapement are based on fishery data alone. The above border run estimate was 29,797 large Chinook; subtracting the harvest of 7,036 fish (6,759 commercial, 172 Aboriginal, and 105 recreational) leaves a spawning escapement of 20,761 fish. This is below the new interim point target of 25,500 fish (the escapement point goal, N_{MSY}) but with the target range of 19,000 to 36,000 fish. In comparison, the average spawning escapement (which had a higher target) was 37,645 fish (Appendix D.11).

Aerial surveys of large Chinook salmon to the six escapement index areas were as follows: Nakina, 1,698 fish (28% below average); Kowatua, 408 fish (48% below average); Tatsamenie, 633 fish (33% below average); Dudidontu, 272 fish (48% below average); Nahlin, 1,033 fish (16% above average); and Tseta Creek, 145 fish (56% below average). Survey conditions were rated as normal. The total of 4,189 large Chinook salmon observed was 28% below average. Surveys with poor viewing conditions are excluded from these averages.

Carcass weirs were operated on the Nakina and Little Tatsamenie rivers in order to obtain tag and age-length-sex data. A total of 112 large Chinook were counted on the Nakina and the Little Tatsamenie count was 91 large Chinook. Both weirs were below average. Water levels did not appear to have a negative influence on operations at either site in 2009.

Coho Salmon

Spawning escapement of coho salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/US mark-recapture program. Tag application and recovery occurred through the first week of October (both dates fall in week 40). The tag recovery effort consisted of the commercial fishery until week 41 and a test fishery from week 35 through day 5 of week 41 (October 8). Taking into account the inriver harvest of 9,766 fish, the final postseason above border run estimate was 113,716 and spawning escapement estimate was 103,950 fish (Appendix D.18). The spawning escapement was 5% below average but almost 3 times the upper end of the interim escapement goal range (27,500 to 35,000 fish).

Pink Salmon

There is no program to estimate the escapement of Taku River pink salmon; however, the Canyon Island fish wheels provide an index of annual variation in border escapement. A total of 9,234 pink salmon were captured the fish wheels in 2009 (Appendix D.22); 60% of average.

Chum Salmon

As with pink salmon, the Canyon Island fish wheels are used to determine annual variations in border escapement. A total of 231 chum salmon were captured in the wheels in 2009, which was 70% of average (Appendix D.15). The Taku River fall chum run has been depressed since 1988. It is unlikely that the spawning escapement goal of 50,000 to 80,000 fish has been achieved in recent years.

Sockeye Salmon Run Reconstruction

An estimated 35,121 wild Taku sockeye salmon were harvested in the U.S. District 111 fishery. An additional 863 wild sockeye salmon were estimated to have been taken in the U.S. inriver personal use fishery. The estimated total U.S. harvest of wild Taku sockeye salmon was 35,984 fish (Table 4).

In the Canadian commercial fishery harvest estimate of wild Taku sockeye salmon is 10,875 fish. An estimated 105 wild sockeye salmon were taken in the Canadian aboriginal fishery. Therefore, the estimated Canadian treaty harvest of wild Taku sockeye salmon is 10,980 fish (Table 4). An additional 172 wild sockeye salmon were taken in test fisheries.

The contribution of Taku sockeye salmon from the fry planting program was estimated based on expansion of otolith-marked sockeye salmon recovered in the sampled harvest. Estimates are 240 to the District 111 fishery, 8 to the inriver personal use fishery, 105 to the Canadian commercial fishery, and 1 to the aboriginal fishery (Table 4).

The estimate of the above-border run size of sockeye salmon, based on the joint Canada/U.S. mark-recapture program, is 83,097 fish. Deducting the Canadian inriver harvest of 11,086 fish (in commercial, aboriginal and test fisheries) from the above-border run estimate results in an estimated escapement of 71,837 sockeye salmon. The terminal run of Taku sockeye salmon was estimated at 119,329 fish. Based on the escapement goal of 75,000 fish, the AC was 44,329 sockeye salmon, of which the U.S. harvested 102% and Canada harvested 125% of their respective AC (Table 4).

The escapement of 353 Taku sockeye salmon originating from the fry planting program was estimated by sampling broodstock otoliths at Tatsamenie Lake and applying the mark rate (69/397) to the weir count of 2,032 fish. The terminal run Taku sockeye salmon from the fry planting program was estimated at 709 fish (Table 4).

ALSEK RIVER

Alsek River salmon stocks contribute to the U.S. commercial gillnet fisheries located in Dry Bay, at the mouth of the Alsek River (Figure 3). Unknown quantities of Alsek River origin fish are also taken in the U.S. commercial gillnet and troll fisheries in the Yakutat area. No commercial fishery exists in the Canadian portions of the Alsek River drainage, although aboriginal and recreational fisheries occur in the Tatshenshini River and some of its headwater tributaries (Figure 3).

Harvest Regulations & Management Objectives

Although harvest sharing of Alsek River salmon stocks between Canada and the U.S. has not yet been specified, Annex IV does call for the development and implementation of cooperative abundance-based management plans and programs for Alsek River Chinook, sockeye and coho salmon. Interim escapement goal ranges for Alsek River sockeye and coho salmon were initially set by the TTC at 33,000 to 58,000 sockeye, and 5,400 to 25,000 coho salmon. The principle escapement-monitoring tool for Chinook, sockeye, and coho salmon stocks on the Alsek River is the Klukshu weir, operated by DFO in cooperation with the Champagne-Aishihik First Nation (CAFN). The weir has been in operation since 1976. To make the management objectives of Chinook and sockeye salmon better defined in terms of Klukshu stocks, revised goals, expressed in terms of Klukshu stocks only, were established in 1999 and adopted again in 2009. Mark-recapture programs to estimate the total inriver abundance and the fraction of the escapement contributed by the Klukshu stocks were in operation since 1997 for Chinook salmon and since 2000 for sockeye salmon. These however were discontinued in 2005.

The initiative to establish a specific Klukshu Chinook salmon spawning goal began in 1991 when the TTC set an interim spawning objective of 4,700 Klukshu Chinook salmon. This goal was based more on manager's intuition than on science. From 1995 through 1997, the TTC reviewed this escapement level and concluded that goal of 4,700 Chinook salmon was not supported by the data. A new goal range of 1,100 to 2,300 fish was proposed based on joint analyses of stock-recruitment data. The Parties conducted independent internal reviews of these analyses. Although there was not unanimous support

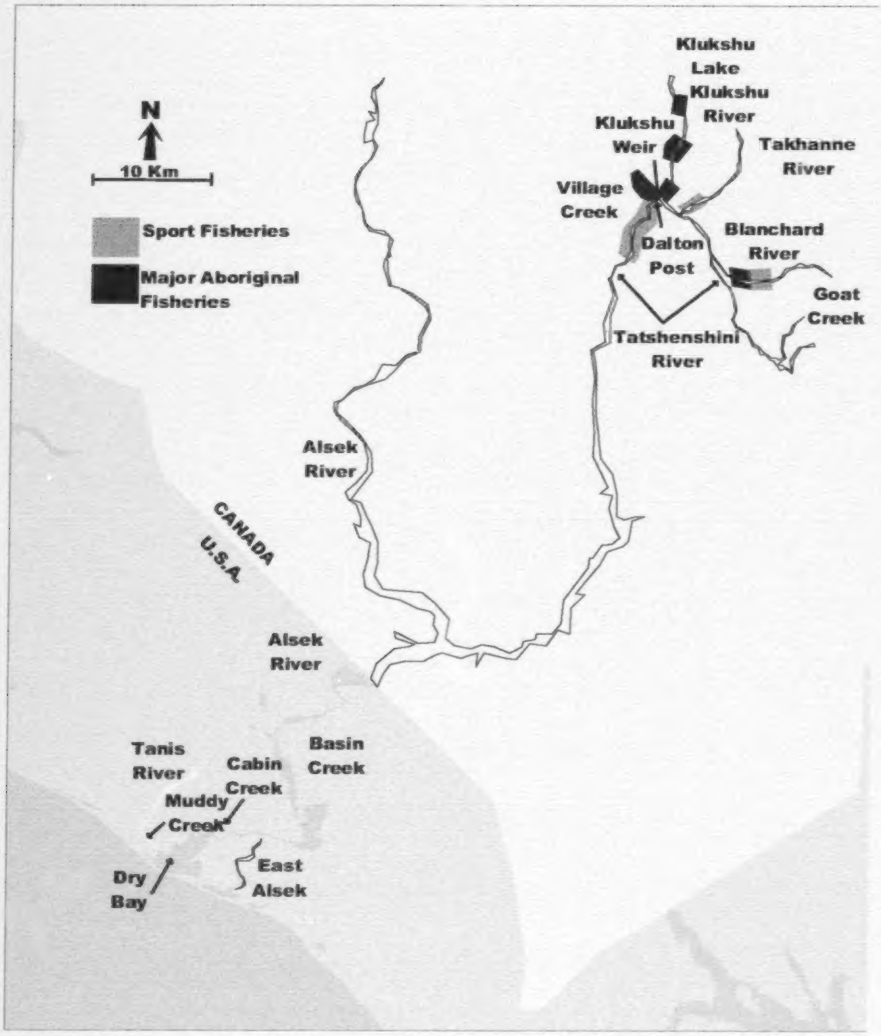

Figure 3. The Alsek River and principal U.S. and Canadian fishing areas.

for the proposal, there was agreement on establishing a minimum goal consistent with the lower end of the proposed range. As a result, Canadian and U.S. managers agreed to a minimum spawning escapement goal of 1,100 Chinook salmon for the Klukshu system for 2000 and this was used again in the 2009 season.

The stock-recruitment analysis of Klukshu sockeye salmon data was completed in 2000 and has undergone internal peer review. The new escapement goal range for Klukshu River sockeye salmon is 7,500 to 15,000 spawners per year.

Preseason Forecasts

The overall sockeye salmon run to the Klukshu River in 2009 was expected to be above average in strength. Principal contributing brood years to the 2009 run were expected to be 2004 (Klukshu escapement of 15,348 fish) and 2005 (Klukshu escapement of 3,373 fish); average Klukshu escapement was approximately 16,700 fish. The estimated production of Klukshu sockeye salmon for 2009 was 20,100 fish. Based on historical stock-recruitment analysis, the range of Klukshu escapements that appear most likely to produce maximum sustained yields is 7,500 to 15,000 sockeye salmon.

The 2009 overall Alsek River sockeye salmon run was expected to be approximately 80,200 fish. This estimate was based on a predicted run of 20,100 Klukshu sockeye salmon derived from the average of the historical Klukshu stock-recruitment data and an assumed Klukshu contribution of 15% up to week 26 (early run) and 32% for the late run (based on the 2001–2003 sockeye salmon radio tagging study). A run size of this magnitude is above the average run size estimate of approximately 63,500 fish (based on the Klukshu weir count expanded to account for other in-river escapement and an assumed U.S. harvest rate of 20%).

The contributing Klukshu early sockeye salmon run counts in 2004 was 3,464 and 2005 was 994 (Appendix E.8). The principal brood year (2004) was above the optimal level of 2,000 sockeye salmon spawners as determined through separate stock-recruitment analyses by DFO of the early run. For 2009, the early run was expected to be slightly above the average 3,200 fish.

The Klukshu Chinook salmon escapements in 2003 was 1,661 and in 2004 was 2,445 fish. The 2003 and 2004 escapements were average (1,600) and near the upper end of the optimum escapement range of 1,100 to 2,300 Chinook salmon estimated from current stock-recruitment analysis. As a result, the preliminary outlook was for an above average run. The 2009 overall Alsek River Chinook salmon run was expected to be approximately 13,700 fish. This estimate was based on a predicted run of 2,800 Klukshu Chinook salmon derived from the historical Klukshu stock-recruitment data; and an assumed Klukshu contribution to the terminal run of approximately 20% (expansion factor of 4.9).

The coho escapements at the Klukshu River weir in 2005 (663 fish) and 2006 (420 fish) suggest the run in 2009 will be below average. (Note: although Klukshu coho weir counts are incomplete, they may serve as a reasonable indicator of escapement.) The average weir count is approximately 2,600 coho salmon (Appendix C.7).

U.S. Fisheries

Although harvest sharing arrangements of Alsek salmon stocks between Canada and the U.S. have not been specified, Annex IV of the Pacific Salmon Treaty does call for a cooperative attempt to rebuild depressed Chinook and early-run sockeye salmon stocks. Preseason expectations were for slightly above average runs of sockeye and Chinook salmon. These expectations were based on parent-year escapements to the Klukshu River. The Alsek River commercial fishery opened on the first Sunday in June, week 24 (June 7). The first two openings remained at 24 hours. Sockeye salmon CPUE remained above average for the next two weeks of the season, and both openings were extended to 48 hours. The openings for the next two weeks, 28 and 29, remained at 24 hours. Effort started to decline by week 30 and the next three openings were extended to 48 hours. Coho salmon are targeted from mid-August on and effort becomes minimal. Fishing times remained at three days per week for the entire coho salmon season. The Alsek River remained open through the second week in October, and the river was not fished during the last two weeks of the season.

The 2009 Dry Bay commercial set-gillnet fishery harvested 603 Chinook, 12,906 sockeye, and 3,446 coho salmon (Table 12). No pink and 20 chum salmon were harvested. No test fishery was conducted on the Alsek River for Chinook salmon in 2009. The Chinook salmon BEG was not attained for Chinook salmon in 2007 and 2008, and the test fishery was dropped to facilitate escapement. The Chinook salmon harvest was slightly below average, while the sockeye salmon harvest was slightly above average. The coho salmon harvest was well above average. Very little effort was recorded during the coho salmon season due to market conditions, although the coho salmon harvest was the highest recorded in the past five years. The number of fishing days was 44. The total effort expended in the fishery was 200 boat days, which was below average.

Canadian Fisheries

Due to the elimination of the harvest monitor position in 2005, harvest from the food fishery are largely unknown. The only harvest information for 2009 was the fish taken from the Klukshu River weir and an estimate of harvest above/below the weir (based on the past relationship with the weir count and harvest) which was 105 Chinook, 715 sockeye, and 3 coho salmon. The average harvest were 83 Chinook, 1,271 sockeye, and 11 coho salmon. As a result of the weak return of late run sockeye salmon, discussions with DFO and the CAFN were held and it was decided to suspend fishing for Klukshu sockeye salmon starting on September 24th until October 8th.

The harvest estimates for the Tatshenshini recreational fishery were below average for Chinook salmon, with an estimated 20 fish retained (112 released), and well below average for sockeye salmon with 2 retained (35 released), and no harvest were recorded for coho salmon. These represented 22% of average for Chinook, 5% of the average for sockeye, and 0% for coho salmon. On September 23rd, the daily and possession limits for sockeye salmon were reduced to zero for the remainder of the year due to the weak return of late run sockeye salmon.

Management of salmon in the Yukon is a shared responsibility between DFO and the Yukon Salmon Committee (YSC). The YSC was established in 1995 pursuant to the Comprehensive Land Claim Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon. The Committee is a public board consisting of ten members, 70% of which are appointed by Yukon First Nations. Two CAFN members sit on the YSC. Although the Committee currently operates by consensus, the voting structure of the Committee is organized so that, should a vote be necessary, 50% of the votes reside with appointees of Yukon First Nations.

The 2009 Alsek-Tatshenshini management plan, adopted by CAFN, YSC, and DFO, was based on the objectives described in the Harvest Regulations & Management Objectives section above. For Chinook and early run sockeye salmon management, the status of the Klukshu weir counts was to be reviewed on or about July 18 to ensure weir and spawning escapement targets were on track. The status of the late run sockeye salmon would be reviewed the first week of September. Adjustments to inseason fishing regimes in the recreational and aboriginal fisheries would be made if deemed necessary. Other key elements of the plan are described below.

The center of aboriginal fishing activity in the Alsek River drainage occurs at the CAFN village of Klukshu, on the Haines road, about 60 km south of Haines Junction. Salmon are harvested by means of gaff, small gillnets, sport rods, and traditional fish traps as the fish migrate up the Klukshu River and into Klukshu Lake. The fishing plan for the aboriginal fishery in the Klukshu River and adjacent areas allowed for fishing by any means (as established in the communal license) 7 days a week. Conservation thresholds that might invoke restrictions in the Aboriginal fishery were projected Klukshu weir counts of <1,100 Chinook and <1,500 early sockeye salmon. Food fisheries also exist on Village Creek and in the headwaters of the Tatshenshini River and tributaries thereof (Goat Creek, Stanley Creek, Parton River, and the Blanchard River). The plan did not restrict the fishery other than to reserve harvests of Chinook salmon at Goat Creek, Stanley Creek, and the Parton River for elders only.

The majority of the recreational fishing effort on the Alsek drainage occurs in the Tatshenshini River, at and just downstream of the mouth of the Klukshu River in the vicinity of the abandoned settlement of Dalton Post. The management plan prohibited the retention of sockeye salmon in the recreational fishery prior to August 15 unless the weir count projection for the early run was >4,500 sockeye salmon. The Chinook salmon daily harvest limit was one fish and the possession limit was two Chinook salmon. For other salmon species, the daily harvest and possession limits were two and four fish, respectively. However, the aggregate limit for all salmon combined was two salmon per day, four fish in possession. Starting in 2003, recreational salmon fishing was permitted in the

Tatshenshini River 7 days a week; this fishery had previously been open from 6:00 am Saturday to 12:00 noon Tuesday each week. Headwater areas in the vicinity of the British Columbia/Yukon border were to be closed in late July to protect spawning Chinook salmon. Conservation thresholds that were expected to invoke additional restrictions in the recreational fishery were projected Klukshu weir counts of <1,300 Chinook and < 10,500 sockeye salmon (early and late runs combined).

A mandatory Yukon Salmon Conservation Catch Card (YSCCC), introduced by the YSC in 1999, was required by all recreational salmon fishers in 2009. The purpose of the YSCCC is to improve harvest estimates and to serve as a statistical base to ascertain the importance of salmon to the Yukon recreational fishery. Anglers are required to report their harvest via mail by the late fall. Information requested includes the number, sex, size, date and location of salmon caught and released.

Since 2001, CAFN has imposed a fishing area closure from the Klukshu River Bridge crossing up to the new weir location to allow for better staging opportunities for salmon in the vicinity of the Klukshu/Tatshenshini confluence.

Escapement

Total drainage abundance programs are being investigated as part of the development of abundance-based management regimes and to accurately assess whether the escapement goals for Alsek River Chinook and sockeye salmon stocks are appropriate and if so, are being achieved. At this time, there are no programs in place to estimate the drainage-wide coho salmon escapement. A large and variable proportion of the escapement of each species is enumerated at the weir on the Klukshu River. Current escapement monitoring programs including the Klukshu weir, Village Creek electronic counter, and aerial surveys allow annual comparisons of escapement indices. The most reliable long-term comparative escapement index for Alsek River drainage salmon stocks is the Klukshu River weir count. Escapements for 2009 are shown in Table 8.

Sockeye Salmon

The Klukshu River sockeye salmon final weir count was 5,712 and the escapement estimates was 5,509 fish (Table 8, Appendices E. 3). The count of 1,247 early run fish (count through August 15) was 52% of average while the count of 4,465 late run fish was 44% of average. The total escapement of 5,509 fish was well below the lower end of the recommended escapement goal range of 7,500 to 15,000 fish. It should be noted that the weir was pulled on October 1st (approx. 10 days earlier than normal). Historically, the sockeye salmon run is 95% complete by this time but in some years, as little as, 65% of the sockeye run has migrated through the weir. The sockeye salmon escapement to Village Creek was only partially enumerated in 2009 due to malfunctions of the electronic counter. An over flight of Nesketaheen Lake in early August indicated that approximately 4,500 sockeye spawners had reached the lake (average count at Village Creek is 2,989).

Chinook Salmon

The most reliable comparative Chinook salmon escapement index for the Alsek River drainage is the Klukshu River weir count. The final Chinook salmon weir count was 1,571 and escapement was 1,518 (Table 8), and were both 7% above average (1,467 and 1,414). The 2009 escapement was within the escapement goal range of 1,100 to 2,300 Klukshu Chinook salmon.

Coho Salmon

The Klukshu River coho weir count of 424 cannot serve as a reliable run strength indicator as the weir was removed (October 1st) near the beginning of the coho salmon return to the Klukshu River.

Table 8. Preliminary Harvest and Klukshu index escapement data for Alsek River sockeye, Chinook, and coho salmon for 2009.

	Chinook	Sockeye	Coho
Escapement Index[a]			
Klukshu Weir Count	1,571	5,712	424
Klukshu Escapement	1,518	5,509	421
Harvest[b]			
U.S. Commercial	602	12,906	3,454
U.S. Subsistence	57	245	17
U.S. Test	0	0	0
Canadian Aboriginal	105	715	3
Canadian Recreational	20	2	0
Total	784	13,868	3,474

[a] Klukshu River salmon stocks represent an assumed large and variable portion of the total Alsek River salmon escapement.

[b] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for harvest other than the listed fisheries.

ENHANCEMENT ACTIVITIES

Egg Collection

In 2009, sockeye salmon eggs were collected at Tahltan Lake on the Stikine River for the twenty-first year, and in the Tatsamenie Lake system on the Taku River, for the twentieth year of this program.

Tahltan Lake

The egg collection was contracted to Arc Environmental Ltd. for the fourteenth consecutive year. The egg-take goal at Tahltan Lake is 6.0 million eggs; 4.5 million eggs were collected. Fish were captured with a beach seine at the major spawning site as has been done in most years. Brood year 2009 egg takes were initiated on September 2nd at

Tahltan Lake and were completed on September 24th; there were 12 egg collections. The receipt of two lots of Tahltan eggs was delayed by 2 days, and three others by 1 day, due to unfavorable weather conditions. Eggs were collected from 1,505 females and a like number of males.

Tatsamenie Lake

B. Mercer and Associates Ltd was contracted to collect eggs. Tatsamenie Lake broodstock was captured for the fifteenth year at an adult enumeration weir located at the outlet of Tatsamenie Lake. Egg takes were initiated September 21st at Tatsamenie Lake. An estimated 1.2 million eggs were collected from 305 females and milt was collected from a like number of males. Tatsamenie Lake egg takes were completed on October 17th. The receipt of one lot of Tatsamenie eggs was delayed by 2 days due to unfavorable weather conditions.

Trapper Lake

Due to lowered adult escapement into Little Trapper Lake, only 140,000 eggs were collected from this stock, those eggs were planted in Tunjony Creek, a tributary of Big Trapper Lake. This project was operated with Northern Fund monies but will be reported in TBR reports. Evaluation of egg plants will take place in the spring using fyke nets and hydraulic sampling.

Incubation, Thermal Marking, and Fry Plants (2004 Brood Year)

The egg incubation and thermal-marking program at Snettisham Hatchery went smoothly in year 2008/2009. Snettisham hatchery is operated by DIPAC (Douglas Island Pink and Chum, Inc.), a private aquaculture organization in Juneau. A co-operative agreement between ADF&G and DIPAC provides for Snettisham hatchery to serve the needs of the joint TBR enhancement projects.

Incubation of 2008 brood eggs took place at Snettisham Hatchery and the resultant fry were transported to the appropriate systems from May 30 to June 14, 2009. There was one incubator lost to IHNV this year from Tatsamenie and 2 short-term rearing containers from Tahltan Lake.

Tahltan Lake

A total of 1.39 million fry from the 2008 Tahltan Lake sockeye salmon egg take was planted back into that lake in 2009. Survival from green-egg to outplanted fry was 58%. (Lower survival was primarily due to the IHNV loss reported above). Fry outplanting took place from May 31 to June 6.

Tuya Lake

There were 832 thousand fry planted in Tuya Lake on June 14. These fish were from eggs collected at Tahltan Lake in the fall of 2008. Survival from green-egg to outplanted fry was 84%.

Tatsamenie Lake

A total of 3.87 million fry from the 2008 egg take were released into Tatsamenie Lake in 2009. There were two treatment groups: one group was released directly in the lake, and one group held for extended rearing; outplanting took place from May 30 to June 3. Survival from green-egg to outplanted-fry was 89%. The extended rearing group of fry were reared with water from an upland fish-free water source and held in aluminum raceways. After approximately 6 weeks of rearing they were transported to net pens, held for an additional 7 days and release at approximately 2 grams. The expectation is that the additional growth will provide significantly greater survival than direct releases. Somewhat surprisingly, most of these fish left the lake within two weeks of release in a condition indicating that there were smolts and headed to sea. Full evaluation of the success of this study will not be available until these fish return as adults.

Outplant Evaluation Surveys

Acoustic, Trawl, Beach seine and Limnological Sampling

Standard limnological surveys were conducted at Tatsamenie, Tahltan, Trapper and Tuya Lakes. Hydroacoustic surveys with a newly purchased Bio-Sonics unit were conducted at Trapper Lake.

Thermal Mark Laboratories

ADF&G Thermal Mark Laboratory

During the 2009 season the ADFG thermal mark lab processed 19,742 sockeye otoliths collected by ADFG and DFO staff as part of the U.S./Canada fry-planting evaluation program. These collections came from commercial and test fisheries in U.S. waters and in Canadian fisheries on the Taku and Stikine Rivers over a 14-week period. In addition, several escapement samples were examined. The laboratory provided estimates on hatchery contributions for over 90 distinct sampling collections. Estimates of the percentage of hatchery fish contributed to commercial fishery harvest were provided to ADF&G and DFO fishery managers 24 to 48 hours after samples arrived at the lab.

Contribution estimates of enhanced fish to Alaskan harvest were 29,242 enhanced Stikine River fish to District 106 and 108, and 248 enhanced Taku River fish to District 111. Contributions estimates of enhanced fish to Canadian fisheries included 19,302 enhanced fish to Stikine River fisheries and 106 enhanced fish to the Taku River fisheries.

Canadian Thermal Mark Laboratory

Sub-samples of juvenile and adult otolith samples collected at the study lakes during the 2009 season are being analyzed at the DFO thermal mark lab in Whitehorse. In most cases 33% of collected samples were processed for preliminary analysis. Results were used for estimates of enhanced numbers in escapements and smolt projects.

APPENDICES

Standards
Large Chinook salmon are MEF length ≥ 660
Unless otherwise stated Chinook salmon are large
Test fisheries for Chinook salmon became commercial assessment test fisheries starting in 2004

Data not available to estimate harvest of Alaska Hatchery pink and chum salmon
All harvest of Tahltan, Trapper, and Tatsamenie, unless otherwise noted, include both wild and hatchery fish.

Appendix A. 1. Weekly harvest of Chinook salmon in the US gillnet, troll, recreational, and subsistence and estimates of Stikine River bound Chinook salmon in District 108, 2009.

	Subsistence harvest		D108 sport harvest			D108 gillnet harvest				D108 troll harvest			US total large
Week	Non-large	Large Stikine	Large total	Large hatchery	Large Stikine	Non-large	Large total	Large hatchery	Large Stikine	Large total	Large hatchery	Large Stikine	Stikine harvest
18		0	0	0	0				0	6		6	6
19		0	30	0	30		8		8	3		3	41
20		0	64	0	64		17		17	23		23	104
21		0	185	18	165		50		50	69		69	284
22		1	183	0	183		34		34	69	32	37	255
23		1	137	78	59				0	65	18	58	118
24		0	137	0	137				0	10		10	147
25		7	98	0	90				0	31	26	4	101
26		7	0	0	0	57	231	177	54	31	55	-33	28
27		5	63	40	23	196	593	678	-85	5		5	-52
28		3	10	0	10	219	729	282	447	6		6	466
29		7	0	0	0	119	237	127	110	0		0	117
Total	19	31	907	136	761	591	1,901	1,264	636	318	131	188	1,616

Appendix A. 2. Weekly harvest of Chinook salmon in the Canadian commercial, aboriginal Telegraph, and recreational fishery in the Stikine River, 2009.

	LRCF													Canada tota
	Kept		Released		Estimated mortality (50%)		URCF		Aboriginal Telegraph		Tahltan sport fishery			large Stikin
Week	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large	Retained	Released	Total	harvest
19	9	0												
20	90	7												90
21	260	28							3	1				263
22	143	20							2	0				145
23	260	36							7	0				267
24	111	9							0	0				111
25	0	0							24	2				24
26	423	267	41	0	21	0			110	40				554
27	134	33	122	67	61	34			145	27			0	340
28	50	14	48	31	24	16	10	10	50	20	4	0	4	138
29	52	20	53	11	27	6	1	11	35	16	8	0	8	123
30	35	55	48	36	24	18	0	1	93	23	8	0	8	160
31	14	5	16	7	8	4	0	4	26	2				48
32	4	4	11	1	6	1	0	0	1	5				11
33	2	0							0	0				2
34	0	0							0	0				0
35	0	0												0
36	0	0												0
37	0	0												0
Total kept	1,587	498	339	153	170	77	11	26	496	136	20	0	20	2,275
Total harvest	1,926	651												2,284
Total harvest + mortality	1,757	575												

Appendix A. 3. Weekly harvest of Chinook salmon in the Canadian test fisheries 2009.

	Drift		Set		Commercial license		Tuya						Total	
							Kept		Released		Estimated mortality (50%)			
Week	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large
19													0	0
20													0	0
21													0	0
22													0	0
23													0	0
24													0	0
25													0	0
26													0	0
27													0	0
28	1	0	0	0			20		17		9		30	0
29	2	0	0	0									2	0
30	0	0	0	0									0	0
31	0	0	0	0									0	0
32	0	0	0	0									0	0
33	0	0	0	0									0	0
34	0	0	0	0									0	0
35	0	0	0	0									0	0
36	0	0											0	0
37	0	0											0	0
38	0	0											0	0
39	0	0											0	0
40	0	0											0	0
41	0	0											0	0
42	0	0											0	0
Total	3	0	0	0	0	0	20	0	17	0	9	0	32	0

Appendix A. 4. Weekly harvest of sockeye salmon in the Alaskan District 106 and 108 fisheries, 2009.

Effort may be less than the sum of effort from 106-41&42 and 106-30 because some boats fished in more than one subdistrict.

			D106-30				D106-41/42				D108			
Week	Subsistence	D106 Total	Harvest	Permits	Days	Permit days	Harvest	Permits	Days	Permit days	Harvest	Permits	Days	Permit days
22	1													
23	6													
24	10													
25	0	17,936	148	6	3.0	18	17,788	64	3.0	192				0
26	225	17,529	1,142	14	4.0	56	16,387	57	4.0	228	7,919	42	4.0	168
27	164	16,745	3,796	23	3.0	69	12,949	67	3.0	201	10,280	65	4.0	180
28	119	15,285	4,819	32	3.0	96	10,466	53	3.0	159	8,100	68	4.0	177
29	163	10,723	4,782	24	2.0	48	5,941	28	2.0	56	2,337	36	2.0	72
30	33	4,899	2,058	20	2.0	40	2,841	17	2.0	34	3,454	82	4.0	232
31	2	8,134	3,297	27	2.0	54	4,837	42	2.0	84	2,571	94	3.0	197
32		10,440	5,341	46	3.0	138	5,099	45	3.0	135	876	46	3.0	138
33		6,146	2,983	34	3.0	102	3,163	51	3.0	153	531	35	3.0	105
34		2,975	1080	31	3.0	93	1895	43	3.0	129	465	41	3.0	123
35		829	148	12	3.0	36	681	45	3.0	135	92	37	3.0	111
36		261	116	37	3.0	111	145	63	3.0	189	36	22	3.0	66
37		59	36	41	3.0	123	23	60	3.0	180	15	40	3.0	120
38		23	12	40	3.0	120	11	47	3.0	141	3	42	3.0	126
39		0	0	14	3.0	42	0	38	3.0	114	0	31	3.0	93
40		0	0	10	2.0	20	0	21	2.0	42	1	12	2.0	24
41										0				
Total	723	111,984	29,758	411	45	1,166	82,226		45.0	2,172	36,680		47.0	1,932

Appendix A. 5. Weekly stock proportions of sockeye salmon harvested in the Alaskan D106 commercial drift gillnet fishery, 2009.

Data are based on SPA and thermal mark data.

			Stikine						CPUE of Stikine Fish			
Week	Alaska	Canada	All Tahltan	Tuya	Mainstem	Total	TahltanEnhance	WildTahltan	AllTahltan	Tuya	Mainstem	Total
25	0.120	0.255	0.474	0.131	0.020	0.625	0.179	0.295	0.363	0.241	0.038	0.264
26	0.226	0.127	0.464	0.126	0.057	0.646	0.150	0.314	0.347	0.225	0.107	0.266
27	0.493	0.131	0.248	0.098	0.031	0.377	0.054	0.194	0.138	0.130	0.042	0.115
28	0.582	0.247	0.084	0.012	0.075	0.171	0.018	0.066	0.045	0.015	0.100	0.050
29	0.528	0.137	0.128	0.079	0.129	0.335	0.005	0.122	0.081	0.120	0.203	0.117
30	0.616	0.199	0.001	0.000	0.184	0.185	0.000	0.001	0.000	0.000	0.190	0.042
31	0.564	0.108	0.037	0.134	0.158	0.328	0.000	0.037	0.013	0.113	0.139	0.064
32	0.408	0.378	0.008	0.062	0.145	0.215	0.000	0.008	0.003	0.054	0.131	0.043
33	0.450	0.338	0.034	0.112	0.066	0.212	0.000	0.034	0.007	0.059	0.036	0.025
34	0.359	0.483	0.016	0.108	0.035	0.158	0.000	0.016	0.002	0.031	0.010	0.010
35	0.345	0.528	0.011	0.094	0.022	0.127	0.000	0.011	0.000	0.010	0.002	0.003
36	0.365	0.463	0.018	0.114	0.040	0.172	0.000	0.018	0.000	0.002	0.001	0.001
37	0.377	0.423	0.022	0.127	0.051	0.200	0.000	0.022	0.000	0.001	0.000	0.000
38	0.370	0.444	0.020	0.120	0.045	0.185	0.000	0.020	0.000	0.000	0.000	0.000
39												
40												
Total	0.402	0.215	0.215	0.090	0.077	0.382	0.063	0.152				
25	2,153	4,575	8,499	2,353	356	11,208	3,202	5,296	123.2	34.1	5.2	162.4
26	3,968	2,230	8,125	2,202	1,003	11,331	2,626	5,499	117.8	31.9	14.5	164.2
27	8,252	2,186	4,155	1,639	513	6,307	899	3,255	46.7	18.4	5.8	70.9
28	8,901	3,771	1,284	177	1,152	2,613	268	1,016	15.1	2.1	13.6	30.7
29	5,666	1,464	1,368	847	1,378	3,593	58	1,310	27.4	16.9	27.6	71.9
30	3,020	974	3	0	903	906	0	3	0.1	0.0	25.8	25.9
31	4,588	878	299	1,087	1,282	2,668	0	299	4.4	16.0	18.9	39.2
32	4,255	3,944	84	647	1,510	2,241	0	84	1.0	7.6	17.8	26.4
33	2,766	2,079	206	688	407	1,302	0	206	2.5	8.3	4.9	15.7
34	1,067	1,437	47	322	103	471	0	47	0.6	4.4	1.4	6.5
35	286	438	9	78	18	105	0	9	0.2	1.4	0.3	1.9
36	95	121	5	30	10	45	0	5	0.0	0.3	0.1	0.5
37	22	25	1	8	3	12	0	1	0.0	0.1	0.0	0.1
38	9	10	0	3	1	4	0	0	0.0	0.0	0.0	0.1
39	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
40	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	45,047	24,132	24,085	10,080	8,640	42,805	7,053	17,032	338.9	141.5	135.8	616.2

Appendix A. 6. Weekly stock proportions of sockeye salmon harvested in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2009.

Data are based on SPA and thermal mark data.

			Stikine						CPUE of Stikine Fish			
Week	Alaska	Canada	AllTahltan	Tuya	Mainstem	Total	TahltanEnhance	WildTahltan	AllTahltan	Tuya	Mainstem	Total
25	0.118	0.256	0.476	0.131	0.019	0.626	0.179	0.297	0.328	0.204	0.029	0.228
26	0.195	0.117	0.494	0.134	0.059	0.688	0.159	0.336	0.264	0.162	0.071	0.194
27	0.418	0.116	0.315	0.115	0.036	0.466	0.064	0.251	0.151	0.125	0.038	0.118
28	0.509	0.263	0.119	0.017	0.091	0.228	0.024	0.095	0.058	0.019	0.100	0.059
29	0.395	0.101	0.208	0.115	0.181	0.504	0.010	0.199	0.164	0.205	0.318	0.210
30	0.617	0.218	0.000	0.000	0.166	0.166	0.000	0.000	0.000	0.000	0.229	0.054
31	0.468	0.102	0.062	0.212	0.156	0.430	0.000	0.062	0.026	0.205	0.149	0.097
32	0.382	0.503	0.016	0.006	0.092	0.115	0.000	0.016	0.005	0.004	0.058	0.017
33	0.496	0.327	0.023	0.139	0.015	0.178	0.000	0.023	0.004	0.048	0.005	0.014
34	0.332	0.571	0.006	0.080	0.010	0.097	0.000	0.006	0.001	0.020	0.003	0.006
35	0.332	0.571	0.006	0.080	0.010	0.097	0.000	0.006	0.000	0.007	0.001	0.002
36	0.332	0.571	0.006	0.080	0.010	0.097	0.000	0.006	0.000	0.001	0.000	0.000
37	0.332	0.571	0.006	0.080	0.010	0.097	0.000	0.006	0.000	0.000	0.000	0.000
38	0.332	0.571	0.006	0.080	0.010	0.097	0.000	0.006	0.000	0.000	0.000	0.000
39	0.332	0.571	0.006	0.080	0.010	0.097	0.000	0.006	0.000	0.000	0.000	0.000
40	0.332	0.571	0.006	0.080	0.010	0.097	0.000	0.006	0.000	0.000	0.000	0.000
Total	0.326	0.214	0.287	0.104	0.068	0.460	0.084	0.203	0.529	0.233	0.237	1.000
25	2,097	4,552	8,476	2,324	340	11,139	3,191	5,285	44.1	12.1	1.8	58.0
26	3,190	1,922	8,102	2,199	974	11,275	2,603	5,499	35.5	9.6	4.3	49.5
27	5,411	1,501	4,082	1,490	464	6,036	831	3,251	20.3	7.4	2.3	30.0
28	5,325	2,757	1,250	177	957	2,384	255	995	7.9	1.1	6.0	15.0
29	2,347	598	1,238	684	1,075	2,996	58	1,180	22.1	12.2	19.2	53.5
30	1,752	619	0	0	470	470	0	0	0.0	0.0	13.8	13.8
31	2,265	493	299	1,024	757	2,080	0	299	3.6	12.2	9.0	24.8
32	1,947	2,566	84	30	471	585	0	84	0.6	0.2	3.5	4.3
33	1,568	1,033	74	441	48	562	0	74	0.5	2.9	0.3	3.7
34	629	1,083	12	152	20	183	0	12	0.1	1.2	0.2	1.4
35	226	389	4	54	7	66	0	4	0.0	0.4	0.1	0.5
36	48	83	1	12	1	14	0	1	0.0	0.1	0.0	0.1
37	8	13	0	2	0	2	0	0	0.0	0.0	0.0	0.0
38	4	6	0	1	0	1	0	0	0.0	0.0	0.0	0.0
39	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
40	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	26,817	17,614	23,623	8,589	5,583	37,795	6,938	16,685	134.8	59.4	60.4	254.6

Appendix A. 7. Weekly stock proportions of sockeye salmon harvested in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2009.

Data are based on SPA and thermal mark data.

			Stikine						CPUE of Stikine Fish			
Week	Alaska	Canada	AllTahltan	Tuya	Mainstem	Total	TahltanEnhance	WildTahltan	AllTahltan	Tuya	Mainstem	Total
25	0.379	0.159	0.152	0.196	0.113	0.461	0.078	0.074	0.163	0.090	0.021	0.055
26	0.681	0.270	0.020	0.002	0.026	0.048	0.020	0.000	0.054	0.003	0.012	0.014
27	0.748	0.180	0.019	0.039	0.013	0.071	0.018	0.001	0.137	0.120	0.016	0.057
28	0.742	0.210	0.007	0.000	0.041	0.048	0.003	0.004	0.046	0.000	0.047	0.035
29	0.694	0.181	0.027	0.034	0.063	0.125	0.000	0.027	0.352	0.189	0.145	0.180
30	0.616	0.172	0.001	0.000	0.210	0.212	0.000	0.001	0.009	0.000	0.249	0.157
31	0.705	0.117	0.000	0.019	0.159	0.178	0.000	0.000	0.000	0.065	0.224	0.158
32	0.432	0.258	0.000	0.116	0.194	0.310	0.000	0.000	0.000	0.249	0.173	0.174
33	0.402	0.351	0.044	0.083	0.121	0.248	0.000	0.044	0.169	0.135	0.081	0.105
34	0.406	0.328	0.032	0.157	0.077	0.266	0.000	0.032	0.048	0.102	0.021	0.045
35	0.406	0.328	0.032	0.157	0.077	0.266	0.000	0.032	0.017	0.036	0.007	0.016
36	0.406	0.328	0.032	0.157	0.077	0.266	0.000	0.032	0.004	0.009	0.002	0.004
37	0.406	0.328	0.032	0.157	0.077	0.266	0.000	0.032	0.001	0.003	0.001	0.001
38	0.406	0.328	0.032	0.157	0.077	0.266	0.000	0.032	0.000	0.001	0.000	0.000
39	0.406	0.328	0.032	0.157	0.077	0.266	0.000	0.032	0.000	0.000	0.000	0.000
40	0.406	0.328	0.032	0.157	0.077		0.000	0.032	0.000	0.000	0.000	0.000
Total	0.613	0.219	0.016	0.050	0.103	0.168	0.004	0.012	0.111	0.260	0.628	1.000
25	56	24	23	29	17	68	12	11	1.3	1.6	0.9	3.8
26	778	309	23	3	29	55	23	0	0.4	0.1	0.5	1.0
27	2,840	685	73	149	49	271	68	5	1.1	2.2	0.7	3.9
28	3,576	1,014	34	0	195	229	12	21	0.4	0.0	2.0	2.4
29	3,319	866	130	163	303	596	0	130	2.7	3.4	6.3	12.4
30	1,268	355	3	0	433	435	0	3	0.1	0.0	10.8	10.9
31	2,323	385	0	63	526	588	0	0	0.0	1.2	9.7	10.9
32	2,308	1,378	0	617	1,039	1,656	0	0	0.0	4.5	7.5	12.0
33	1,198	1,046	132	247	359	739	0	132	1.3	2.4	3.5	7.2
34	438	354	34	170	83	288	0	34	0.4	1.8	0.9	3.1
35	60	49	5	23	11	39	0	5	0.1	0.6	0.3	1.1
36	47	38	4	18	9	31	0	4	0.0	0.2	0.1	0.3
37	15	12	1	6	3	10	0	1	0.0	0.0	0.0	0.1
38	5	4	0	2	1	3	0	0	0.0	0.0	0.0	0.0
39	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
40												
Total	18,231	6,518	462	1,491	3,057	5,009	115	346	7.7	18.0	43.4	69.1

Appendix A. 8. Weekly stock proportions and stock-specific harvest of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 2009.

Data are based on SPA and thermal mark data.

			Stikine						CPUE of Stikine Fish			
Week	Alaska	Canada	AllTahltan	Tuya	Mainstem	Total	TahltanEnhance	WildTahltan	AllTahltan	Tuya	Mainstem	Total
25						0.000			0.000	0.000	0.000	0.000
26	0.075	0.072	0.488	0.301	0.064	0.853	0.153	0.336	0.289	0.273	0.054	0.215
27	0.030	0.111	0.521	0.232	0.107	0.859	0.153	0.368	0.373	0.255	0.109	0.262
28	0.076	0.105	0.225	0.291	0.302	0.819	0.056	0.170	0.129	0.257	0.248	0.200
29	0.047	0.025	0.269	0.239	0.421	0.929	0.044	0.225	0.109	0.150	0.245	0.161
30	0.099	0.178	0.204	0.077	0.442	0.723	0.031	0.173	0.038	0.022	0.118	0.057
31	0.134	0.130	0.222	0.059	0.454	0.736	0.038	0.185	0.036	0.015	0.106	0.051
32	0.249	0.267	0.085	0.109	0.289	0.484	0.022	0.063	0.007	0.013	0.033	0.016
33	0.219	0.140	0.121	0.025	0.495	0.641	0.000	0.121	0.008	0.002	0.045	0.017
34	0.036	0.265	0.159	0.109	0.431	0.700	0.004	0.155	0.008	0.008	0.029	0.014
35	0.036	0.265	0.159	0.109	0.431	0.700	0.015	0.144	0.002	0.002	0.006	0.003
36	0.036	0.265	0.159	0.109	0.431	0.700	0.000	0.159	0.001	0.001	0.004	0.002
37	0.036	0.265	0.159	0.109	0.431	0.700	0.000	0.159	0.000	0.000	0.001	0.000
38	0.036	0.265	0.159	0.109	0.431	0.700	0.000	0.159	0.000	0.000	0.000	0.000
39	0.036	0.265	0.159	0.109	0.431	0.700	0.000	0.159	0.000	0.000	0.000	0.000
40	0.036	0.265	0.159	0.109	0.431	0.700	0.000	0.159	0.000	0.000	0.000	0.000
Total	0.073	0.110	0.360	0.225	0.232	0.817	0.097	0.262	0.426	0.277	0.298	1.000
25												
26	596	568	3,868	2,380	507	6,754	1,210	2,658	23.0	14.2	3.0	40.2
27	304	1,146	5,355	2,380	1,096	8,831	1,571	3,784	29.7	13.2	6.1	49.1
28	619	850	1,826	2,356	2,449	6,631	450	1,375	10.3	13.3	13.8	37.5
29	109	57	628	559	983	2,171	103	525	8.7	7.8	13.7	30.1
30	344	613	703	267	1,527	2,497	106	597	3.0	1.2	6.6	10.8
31	346	334	572	153	1,167	1,891	97	475	2.9	0.8	5.9	9.6
32	219	234	75	96	253	424	19	56	0.5	0.7	1.8	3.1
33	116	74	65	13	263	340	0	65	0.6	0.1	2.5	3.2
34	17	123	74	51	201	325	2	72	0.6	0.4	1.6	2.6
35	3	24	15	10	40	64	1	13	0.1	0.1	0.4	0.6
36	1	10	6	4	16	25	0	6	0.1	0.1	0.2	0.4
37	1	4	2	2	6	10	0	2	0.0	0.0	0.1	0.1
38	0	1	0	0	1	2	0	0	0.0	0.0	0.0	0.0
39	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
40	0	0	0	0	0	1	0	0	0.0	0.0	0.0	0.0
Total	2,674	4,038	13,188	8,271	8,508	29,968	3,560	9,628	79.8	51.8	55.7	187.3

Appendix A. 9. Weekly sockeye salmon harvest and effort in the Canadian commercial and assessment fisheries in the lower Stikine River, 2009.

	LRCF					Telegraph	Drift Net Test		Set Net Test		Test	Commercial
Week	Harvest	Permits	Days	Permit days	URCF	aboriginal	harvest	# drifts	harvest	hours	Total	Total
19	0	11.0	1.0	11.0		0					0	0
20	0	12.0	2.0	24.0		0					0	0
21	0	11.0	2.0	22.0		0					0	0
22	0	12.0	1.0	12.0		0					0	0
23	0	12.0	1.0	12.0		0					0	0
24	0	12.0	0.5	6.0		0					0	0
25	0	0.0	0.0	0.0		0					0	0
26	2,446	12.0	2.0	24.0		17					0	2463
27	12,658	12.0	5.0	60.0		244					0	12902
28	6,292	12.0	5.0	60.0	758	1,263	39	14	139	24	178	8313
29	5,337	12.3	4.0	49.0	592	942	69	28	222	48	291	6871
30	6,159	13.0	4.0	52.0	362	1,670	54	14	170	36	224	8191
31	2,676	12.7	3.0	38.0	446	749	17	42	55	30	72	3871
32	1,540	9.0	2.0	18.0	318	190	50	56	230	72	280	2048
33	1,258	12.0	3.0	36.0		38	16	42	208	72	224	1296
34	525	10.3	4.0	41.0		36	2	28	59	48	61	561
35	375	7.1	7.0	50.0			1	42	9	12	10	375
36	119	4	7	30.0			2	56			2	119
37	24	5	4	18.0			0	78			0	24
38							0	77			0	0
39							0	84			0	0
40							0	84			0	0
41							0	84			0	0
42							0	42			0	0
Total	39,409		57.5	563.0	2,476	5,148	250	561	1,092	342	1,342	47,033

Appendix A. 10. Weekly sockeye salmon stock proportions and harvest by stock in the Canadian commercial fishery in the lower Stikine River, 2009.

Sex specific age compositions were calculated and the stock composition of the females sampled for egg diameters was expanded to the harvest by age.

	Porportion					Harvest				
Week	Small Egg	AllTahltan	Tuya	Mainstem	hltanEnhan	AllTahltan	Tuya	Mainstem	WildTahltan	ltanEnhance
26	0.972	0.741	0.224	0.035	0.260	1,813	547	86	1,178	635
27	0.930	0.741	0.224	0.035	0.219	9,382	2,831	445	6,605	2,778
28	0.921	0.649	0.307	0.044	0.166	4,082	1,932	277	3,041	1,041
29	0.762	0.622	0.324	0.054	0.173	3,320	1,728	289	2,397	923
30	0.583	0.514	0.314	0.172	0.093	3,168	1,934	1,057	2,595	573
31	0.241	0.419	0.199	0.382	0.019	1,122	533	1,021	1,070	52
32	0.357	0.107	0.127	0.766	0.049	165	196	1,180	89	75
33	0.358	0.356	0.088	0.555	0.037	448	111	698	402	47
34	0.096	0.269	0.031	0.700	0.000	141	16	367	141	0
35	0.100	0.048	0.032	0.920	0.000	18	12	345	18	0
36	0.050	0.046	0.081	0.873	0.000	6	10	104	6	0
37	0.000	0.046	0.081	0.873	0.000	1	2	21	1	0
Total						23,666	9,852	5,891	17,542	6,124
Proportion						0.601	0.250	0.149	0.445	0.155

	Harvest/Effort below Porcupin			CPUE						
Week	Sockeye	Permit Day		Total	Small Egg	AllTahltan	Tuya	Mainstem	WildTahltan	ltanEnhance
26	2,446	24.0		101.917	99.086	75.542	22.792	3.583	49.070	26.472
27	12,658	60.0		210.967	196.176	156.371	47.178	7.417	110.077	46.294
28	6,292	60.0		104.867	96.619	68.042	32.202	4.623	50.684	17.357
29	4,733	45.0		105.178	80.135	65.427	34.051	5.700	47.234	18.193
30	4,638	45.0		103.067	60.122	53.011	32.366	17.690	43.423	9.588
31	2,676	38.0		70.421	16.998	29.522	14.029	26.870	28.155	1.367
32	1,540	18.0		85.556	30.556	9.144	10.870	65.541	4.970	4.173
33	1,258	36.0		34.944	12.522	12.457	3.086	19.401	11.155	1.302
34	525	41.0		12.805	1.231	3.448	0.397	8.960	3.448	0.000
35	375	50.0		7.500	0.750	0.357	0.243	6.900	0.357	0.000
36	115	30.0		3.833	0.192	0.178	0.311	3.345	0.178	0.000
37	24	18.0		1.333	0.000	0.062	0.108	1.163	0.062	0.000
Total	37,280	465		842.39	594.39	473.56	197.63	171.19	348.81	124.75
Proportion					0.706	0.562	0.235	0.203	0.414	0.148

Appendix A. 11. Harvest by stock and week for sockeye salmon in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 2009.

If no fishery, commercial harvest from comparable week was used.

	Stock				
Week	ll Tahltar	Tuya	Mainstem	WildTahltan	hltanEnhance
Proportion by stock for upper river fisheries					
24					
25					
26	0.512	0.238	0.250	0.404	0.108
27	0.512	0.238	0.250	0.404	0.108
28	0.633	0.317	0.050	0.445	0.188
29	0.712	0.288	0.000	0.592	0.120
30	0.750	0.250	0.000	0.625	0.125
31	0.750	0.250	0.000	0.625	0.125
32	0.460	0.430	0.110	0.223	0.237
33	0.269	0.421	0.310	0.041	0.228
34	0.402	0.378	0.220	0.294	0.108
Total					
Harvest by stock for upper river commercial fishery					
28	480	240	38	338	143
29	422	170	0	350	71
30	272	91	0	226	45
31	335	112	0	279	56
32	146	137	35	71	75
Total	1,654	749	73	1,264	390
Harvest by stock for Telegraph aboriginal fishery					
24	0	0	0	0	0
25	0	0	0	0	0
26	9	4	4	7	2
27	125	58	61	98	26
28	800	400	63	562	237
29	670	271	0	557	113
30	1,252	417	0	1,043	209
31	562	187	0	468	94
32	87	82	21	42	45
33	10	16	12	2	9
34	14	14	8	11	4
35	0	0	0	0	0
Total	3,530	1,449	169	2,791	738

Appendix A. 12. Weekly harvest, CPUE, and migratory timing of Tahltan, Tuya, and mainstem sockeye stocks in the Stikine test fishery, 2009.

		Proportions				Harvest				CPUE				Migratory Timing		
Week	small eg	AllTahlta	Tuya	Mainstem	hltanEnhar	AllTahltan	Tuya	Mainstem	hltanEnhan	AllTahlta	Tuya	Mainstem	Total	AllTahltan	Tuya	Mainstem
Drift gillnet																
25		0.741	0.224	0.035						0.000	0.000	0.000	0.000	0.000	0.000	0.000
26		0.741	0.224	0.035						2.007	0.605	0.095	2.707	0.104	0.031	0.005
27		0.649	0.307	0.044						3.636	1.721	0.247	5.604	0.189	0.090	0.013
28	0.929	0.545	0.253	0.202	0.185	21	10	8	7	1.518	0.704	0.563	2.786	0.079	0.037	0.029
29	0.664	0.436	0.265	0.299	0.103	30	18	21	7	1.075	0.652	0.737	2.464	0.056	0.034	0.038
30	0.450	0.344	0.254	0.402	0.107	19	14	22	6	1.326	0.982	1.550	3.857	0.069	0.051	0.081
31	0.438	0.306	0.153	0.542	0.097	5	3	9	2	0.124	0.062	0.219	0.405	0.006	0.003	0.011
32	0.277	0.257	0.104	0.639	0.054	13	5	32	3	0.230	0.092	0.571	0.893	0.012	0.005	0.030
33	0.218	0.147	0.116	0.737	0.045	2	2	12	1	0.056	0.044	0.281	0.381	0.003	0.002	0.015
34	0.077	0.082	0.082	0.836	0.082	0	0	2	0	0.006	0.006	0.060	0.071	0.000	0.000	0.003
35	0.400	0.100	0.100	0.800	0.100	0	0	1	0	0.002	0.002	0.019	0.024	0.000	0.000	0.001
36		0.000	0.000	1.000	0.000	0	0	2	0	0.000	0.000	0.036	0.036	0.000	0.000	0.002
Total						91	52	108	25	9.980	4.871	4.377	19.228			
Proportion						0.362	0.207	0.431						0.519	0.253	0.228
Set gillnet																
28		0.545	0.253	0.202	0.185	76	35	28	26	3.156	1.464	1.171	5.792	0.126	0.058	0.047
29		0.436	0.265	0.299	0.103	97	59	66	23	2.018	1.224	1.383	4.625	0.081	0.049	0.055
30		0.344	0.254	0.402	0.107	58	43	68	18	1.623	1.202	1.897	4.722	0.065	0.048	0.076
31		0.306	0.153	0.542	0.097	17	8	30	5	0.560	0.280	0.993	1.833	0.022	0.011	0.040
32		0.257	0.104	0.639	0.054	59	24	147	12	0.821	0.331	2.042	3.194	0.033	0.013	0.082
33		0.147	0.116	0.737	0.045	31	24	153	9	0.426	0.335	2.128	2.889	0.017	0.013	0.085
34		0.082	0.082	0.836	0.082	5	5	49	5	0.101	0.101	1.028	1.229	0.004	0.004	0.041
35		0.100	0.100	0.800	0.100	1	1	7	1	0.075	0.075	0.600	0.750	0.003	0.003	0.024
36		0.000	0.000	1.000	0.000	0	0	0	0							
Total						343	199	549	100	8.78	5.01	11.24	25.03			
Proportion						0.314	0.182	0.503						0.351	0.200	0.449
Total Test Fishery Harvest																
28		0.545	0.253	0.202	0.185	97	45	36	33							
29		0.436	0.265	0.299	0.103	127	77	87	30							
30		0.344	0.254	0.402	0.107	77	57	90	24							
31		0.306	0.153	0.542	0.097	22	11	39	7							
32		0.257	0.104	0.639	0.054	72	29	179	15							
33		0.147	0.116	0.737	0.045	33	26	165	10							
34		0.082	0.082	0.836	0.082	5	5	51	5							
35		0.100	0.100	0.800	0.100	1	1	8	1							
36		0.000	0.000	1.000	0.000	0	0	2	0							
Total						434	251	657	125							
Proportion						0.323	0.187	0.490	0.093							
AllTahltan harvest				TahltanEnhan	WildTahltn											
28		0.545		0.185	0.360											
29		0.436		0.103	0.333											
30		0.344		0.107	0.237											
31		0.306		0.097	0.208											
32		0.257		0.054	0.204											
33		0.147		0.045	0.103											
34		0.000		0.082	0.000											
35		0.100		0.100	0.000											
36		0.000		0.000	0.000											

Appendix A. 13. Daily test harvest taken from the Tuya Assessment Fishery located above the Tahltan River, 22–30 July 2009.

	Harvest	Proportions				Stock specific harvest			
Date	Total	AllTahltan	Tuya	Mainstem	TahltanEnhance	All Tahltan	Tuya	Mainstem	TahltanEnhance
7/22	213	0.428	0.552	0.020	0.069	91	118	4	15
7/23	280	0.210	0.750	0.040	0.083	59	210	11	23
7/24	259	0.320	0.680	0.000	0.000	83	176	0	0
7/25	223	0.132	0.808	0.060	0.000	30	180	13	0
7/26	175	0.315	0.625	0.060	0.083	55	109	11	15
7/27	231	0.285	0.615	0.100	0.077	66	142	23	18
7/28	249	0.149	0.731	0.120	0.000	37	182	30	0
7/29	240	0.150	0.750	0.100	0.000	36	180	24	0
7/30	275	0.054	0.846	0.100	0.038	15	233	28	11
Total	2,144	0.220	0.714	0.067	0.038	471	1,530	144	81

Appendix A. 14. Weekly coho salmon harvest in the Alaskan District 106 and 108 fisheries, 2009.

	D106					D108			Subsistence
Week	Hatchery	Wild	Total	106-41/42	106-30	Hatchery	Wild	Total	harvest
25	700	569	1,269	1,220	49				
26	3,164	1,311	4,475	2,999	1,476	185	-87	98	
27	5,812	2,742	8,554	6,020	2,534	120	138	258	
28	6,050	3,970	10,020	4,428	5,592	204	626	830	
29	5,663	2,672	8,335	3,448	4,887	41	275	316	
30	6,163	3,480	9,643	3,097	6,546	611	1,410	2,021	
31	3,390	3,656	7,046	2,339	4,707	522	1,140	1,662	
32	10,170	5,943	16,113	4,255	11,858	0	873	873	
33	2,738	10,480	13,218	6,215	7,003	136	1,917	2,053	
34	2,213	8,154	10,367	7,132	3,235	126	2,261	2,387	
35	2,528	4,443	6,971	5,956	1,015	0	2,194	2,194	0
36	5,325	9,182	14,507	9,417	5,090	929	3,109	4,038	0
37	8,261	6,106	14,367	7,457	6,910	1,674	2,472	4,146	0
38	6,747	6,270	13,017	7,983	5,034	1,838	4,726	6,564	0
39	2,522	1,032	3,554	2,667	887	1,570	571	2,141	15
40	2,116	997	3,113	1,958	1,155	581	698	1,279	6
41									
Total	73,562	71,007	144,569	76,591	67,978	8,537	22,323	30,860	21

Appendix A. 15. Weekly harvest of coho salmon in the Canadian lower river commercial fishery and test fisheries 2009.

		Test			
	LRCC	Drift [a]	Set	Additional	Total
19	0				
20	0				
21	0				
22	0				
23	0				
24	0				
25	0				
26	0				
27	0				
28	0	0	0		0
29	1	0	1		2
30	5	0	0		5
31	11	0	20		31
32	40	3	11		54
33	157	12	42		211
34	684	9	61		754
35	1,741	18	11		1,770
36	2,171	32			2,203
37	1,171	69			1,240
38		80			80
39		26			26
40		65			65
41		29			29
42		5			5
Total	5,981	348	146	0	6,475

Appendix A. 16. Weekly salmon effort in the Alaskan District 106 and 108 fisheries, 2009.

Effort may be less than the sum of effort from 106-41&42 and 106-30 because some boats fished in more than one subdistrict.

		D106			106-41/42			106-30			D108			
Week	Start Date	Permits	Days	Permit Days	Permits	Days	Permit Days	Permits	Days	Permit Days	Permits	Days	Permit Days	Subsistence Permits
25	14-Jun	69	3.0	207	64	3.0	192	6	3.0	18			0	
26	21-Jun	69	4.0	276	57	4.0	228	14	4.0	56	42	4.0	168	
27	28-Jun	89	3.0	267	67	3.0	201	23	3.0	69	65	4.0	180	
28	5-Jul	85	3.0	255	53	3.0	159	32	3.0	96	68	4.0	177	
29	12-Jul	50	2.0	100	28	2.0	56	24	2.0	48	36	2.0	72	
30	19-Jul	35	2.0	70	17	2.0	34	20	2.0	40	82	4.0	232	
31	26-Jul	68	2.0	136	42	2.0	84	27	2.0	54	94	3.0	197	
32	2-Aug	85	3.0	255	45	3.0	135	46	3.0	138	46	3.0	138	
33	9-Aug	83	3.0	249	51	3.0	153	34	3.0	102	35	3.0	105	
34	16-Aug	73	3.0	219	43	3.0	129	31	3.0	93	41	3.0	123	
35	23-Aug	56	3.0	168	45	3.0	135	12	3.0	36	37	3.0	111	
36	30-Aug	99	3.0	297	63	3.0	189	37	3.0	111	22	3.0	66	
37	6-Sep	97	3.0	291	60	3.0	180	41	3.0	123	40	3.0	120	
38	13-Sep	84	3.0	252	47	3.0	141	40	3.0	120	42	3.0	126	
39	20-Sep	51	3.0	153	38	3.0	114	14	3.0	42	31	3.0	93	
40	27-Sep	29	2.0	58	21	2.0	42	10	2.0	20	12	2.0	24	
41				0										
Total			45	3,253		45	2,172		45	1,166		47	1,932	

Appendix A. 17. Weekly salmon effort in the Canadian fisheries in the Stikine River, 2009.

		Lower Stikine			Upper Sitkine			Telegraph Aboriginal			Test	
Week	Start Date	Permits	Days	Permit Days	Permits	Days	Permit Days	Permits	Days	Permit Days	# Drifts	Set hours
19	3-May	11.00	1.0	11								
20	10-May	12.00	2.0	24								
21	17-May	11.00	2.0	22				1	3	4		
22	24-May	12.00	1.0	12				1	2	2		
23	31-May	12.00	1.0	12				1	2	2		
24	7-Jun	12.00	0.5	6				0	0	0		
25	14-Jun	0.00	0.0	0				2	6	14		
26	21-Jun	12.00	2.0	24				5	7	32		
27	28-Jun	12.00	5.0	60				7	7	50		
28	5-Jul	12.00	5.0	60	1.0	5.0	5	8.3	7.0	58	14	24.0
29	12-Jul	12.25	4.0	49	1.2	5.0	6	8.3	7.0	58	28	48.0
30	19-Jul	13.00	4.0	52	1.0	7.0	7	9.3	7.0	65	14	36.0
31	26-Jul	12.67	3.0	38	1.0	6.0	6	6.9	7.0	48	42	30.0
32	2-Aug	9.00	2.0	18	1.0	4.0	4	2.1	7.0	15	56	72.0
33	9-Aug	12.00	3.0	36				1.3	4.0	5	42	72.0
34	16-Aug	10.25	4.0	41				5	5	25	28	48.0
35	23-Aug	7.14	7.0	50							42	12.0
36	30-Aug	4.29	7.0	30							56	
37	6-Sep	4.50	4.0	18							78	
38				0							77	
39				0							84	
40				0							84	
41				0							84	
42				0							42	
Total			57.5	563.0		27.0	28.0		71.0	378.0	771.0	342.0

Appendix A. 18. Tuya assessment fishery, 2009.

Date	total nets
7/21	8
7/22	8
7/23	8
7/24	8
7/25	8
7/26	8
7/27	8
7/28	8
7/29	8
7/30	8
Total	80

Appendix A. 19. Daily counts of adult sockeye salmon passing through Tahltan Lake weir, 2009

		Cumulative				Cumulative	
Date	Count[a]	Count	Percent	Date	Count	Count	Percent
7-Jul				13-Aug	103	29,043	94.69%
8-Jul				14-Aug	52	29,095	94.86%
9-Jul	Installed			15-Aug	72	29,167	95.09%
10-Jul	0	0	0.00%	16-Aug	88	29,255	95.38%
11-Jul	0	0	0.00%	17-Aug	64	29,319	95.59%
12-Jul	0	0	0.00%	18-Aug	68	29,387	95.81%
13-Jul	4	4	0.01%	19-Aug	51	29,438	95.97%
14-Jul	7,693	7,697	25.09%	20-Aug	55	29,493	96.15%
15-Jul	1,962	9,659	31.49%	21-Aug	345	29,838	97.28%
16-Jul	1,780	11,439	37.29%	22-Aug	190	30,028	97.90%
17-Jul	2,513	13,952	45.49%	23-Aug	106	30,134	98.24%
18-Jul	3,315	17,267	56.29%	24-Aug	52	30,186	98.41%
19-Jul	1,261	18,528	60.40%	25-Aug	104	30,290	98.75%
20-Jul	821	19,349	63.08%	26-Aug	123	30,413	99.15%
21-Jul	667	20,016	65.26%	27-Aug	64	30,477	99.36%
22-Jul	602	20,618	67.22%	28-Aug	62	30,539	99.56%
23-Jul	757	21,375	69.69%	29-Aug	38	30,577	99.69%
24-Jul	775	22,150	72.21%	30-Aug	44	30,621	99.83%
25-Jul	557	22,707	74.03%	31-Aug	13	30,634	99.87%
26-Jul	601	23,308	75.99%	1-Sep	0	30,634	99.87%
27-Jul	1,322	24,630	80.30%	2-Sep	8	30,642	99.90%
28-Jul	621	25,251	82.32%	3-Sep	9	30,651	99.93%
29-Jul	358	25,609	83.49%	4-Sep	2	30,653	99.93%
30-Jul	473	26,082	85.03%	5-Sep	0	30,653	99.93%
31-Jul	505	26,587	86.68%	6-Sep	11	30,664	99.97%
1-Aug	349	26,936	87.82%	7-Sep	4	30,668	99.98%
2-Aug	360	27,296	88.99%	8-Sep	5	30,673	100.00%
3-Aug	594	27,890	90.93%	9-Sep	0	30,673	100.00%
4-Aug	115	28,005	91.30%	10-Sep	0	30,673	100.00%
5-Aug	132	28,137	91.73%	11-Sep	0	30,673	100.00%
6-Aug	159	28,296	92.25%	12-Sep	0	30,673	100.00%
7-Aug	94	28,390	92.56%	13-Sep	0	30,673	100.00%
8-Aug	110	28,500	92.92%		pulled		
9-Aug	101	28,601	93.24%				
10-Aug	74	28,675	93.49%				
11-Aug	143	28,818	93.95%				
12-Aug	122	28,940	94.35%				

	% contribution hatchery	Hatchery[a]	Wild	Total
Total Counted	0.164	5,030	25,643	30,673
Fish removed for broodstock	0.309	930	2,081	3,011
Fish removed for otolith samples		59	290	349
Total Spawners		4,041	23,272	27,313

[a] Thermal mark contribution from pooled brood stock and weir sample otolith results. weighted by run timing

Appendix A. 20. Daily counts of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 2009.

		Cumulative				Cumulative	
Date	Count	Count	Percent	Date	Count	Count	Percent
8-May				6-Jun	12,232	720,232	96.54%
9-May		0	0.00%	7-Jun	11,695	731,927	98.11%
10-May		0	0.00%	8-Jun	4,629	736,556	98.73%
11-May		0	0.00%	9-Jun	2,180	738,736	99.02%
12-May	0	0	0.00%	10-Jun	4,405	743,141	99.61%
13-May	0	0	0.00%	11-Jun	1,309	744,450	99.79%
14-May	5	5	0.00%	12-Jun	374	744,824	99.84%
15-May	8	13	0.00%	13-Jun	994	745,818	99.97%
16-May	2	15	0.00%	14-Jun	116	745,934	99.99%
17-May	18	33	0.00%	15-Jun	29	745,963	99.99%
18-May	14	47	0.01%	16-Jun	51	746,014	100.00%
19-May	35	82	0.01%	17-Jun	31	746,045	100.00%
20-May	1,927	2,009	0.27%				
21-May	804	2,813	0.38%				
22-May	1,313	4,126	0.55%				
23-May	67,718	71,844	9.63%				
24-May	243,814	315,658	42.31%				
25-May	46,914	362,572	48.60%				
26-May	27,121	389,693	52.23%				
27-May	29,620	419,313	56.20%				
28-May	111,752	531,065	71.18%				
29-May	74,133	605,198	81.12%				
30-May	4,010	609,208	81.66%				
31-May	34,820	644,028	86.33%				
1-Jun	34,728	678,756	90.98%				
2-Jun	10,489	689,245	92.39%				
3-Jun	1,188	690,433	92.55%				
4-Jun	2,312	692,745	92.86%	Wild	484,801		
5-Jun	15,255	708,000	94.90%	Hatchery	261,244		
Total					746,045		

Appendix A. 21. Daily counts of adult chinook salmon passing through Little Tahltan weir, 2009.

	Large Chinook			non-large Chinook		
		Cumulative			Cumulative	
Date	Count	Count	Percent	Count	Count	Percent
19-Jun	0			0		
20-Jun	0	0	0.00%	0	0	0.00%
21-Jun	0	0	0.00%	0	0	0.00%
22-Jun	0	0	0.00%	0	0	0.00%
23-Jun	0	0	0.00%	0	0	0.00%
24-Jun	0	0	0.00%	0	0	0.00%
25-Jun	0	0	0.00%	0	0	0.00%
26-Jun	0	0	0.00%	0	0	0.00%
27-Jun	0	0	0.00%	0	0	0.00%
28-Jun	0	0	0.00%	0	0	0.00%
29-Jun	0	0	0.00%	0	0	0.00%
30-Jun	0	0	0.00%	0	0	0.00%
1-Jul	0	0	0.00%	0	0	0.00%
2-Jul	0	0	0.00%	0	0	0.00%
3-Jul	1	1	0.04%	0	0	0.00%
4-Jul	19	20	0.89%	0	0	0.00%
5-Jul	0	20	0.89%	0	0	0.00%
6-Jul	4	24	1.07%	0	0	0.00%
7-Jul	31	55	2.45%	0	0	0.00%
8-Jul	174	229	10.20%	0	0	0.00%
9-Jul	217	446	19.87%	1	1	1.01%
10-Jul	167	613	27.31%	1	2	2.02%
11-Jul	224	837	37.28%	0	2	2.02%
12-Jul	95	932	41.51%	5	7	7.07%
13-Jul	15	947	42.18%	2	9	9.09%
14-Jul	0	947	42.18%	0	9	9.09%
15-Jul	40	987	43.96%	6	15	15.15%
16-Jul	12	999	44.50%	4	19	19.19%
17-Jul	34	1,033	46.01%	17	36	36.36%
18-Jul	10	1,043	46.46%	2	38	38.38%
19-Jul	97	1,140	50.78%	17	55	55.56%
20-Jul	106	1,246	55.50%	3	58	58.59%
21-Jul	21	1,267	56.44%	4	62	62.63%
22-Jul	11	1,278	56.93%	4	66	66.67%
23-Jul	20	1,298	57.82%	1	67	67.68%
24-Jul	4	1,302	58.00%	0	67	67.68%
25-Jul	6	1,308	58.26%	1	68	68.69%
26-Jul	14	1,322	58.89%	0	68	68.69%
27-Jul	214	1,536	68.42%	5	73	73.74%
28-Jul	241	1,777	79.15%	10	83	83.84%
29-Jul	58	1,835	81.74%	0	83	83.84%
30-Jul	1	1,836	81.78%	2	85	85.86%
31-Jul	54	1,890	84.19%	0	85	85.86%
1-Aug	32	1,922	85.61%	0	85	85.86%
2-Aug	34	1,956	87.13%	3	88	88.89%
3-Aug	45	2,001	89.13%	1	89	89.90%
4-Aug	27	2,028	90.33%	1	90	90.91%
5-Aug	54	2,082	92.74%	3	93	93.94%
6-Aug	55	2,137	95.19%	1	94	94.95%
7-Aug	70	2,207	98.31%	2	96	96.97%
8-Aug	0	2,207	98.31%	0	96	96.97%
9-Aug	33	2,240	99.78%	3	99	100.00%
10-Aug	3	2,243	99.91%	0	99	100.00%
11-Aug	2	2,245	100.00%	0	99	100.00%
Total Counted		2,245			99	
Broodstock		0			0	
Escapement		2,245			99	

Appendix B. 1. Historic salmon harvest and effort in the Alaskan District 106 commercial gillnet fishery, 1960–2009.

	Harvest							Effort
Year	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Permit Days
1960	46	10,354	336	1,246	502			
1961	416	20,614	14,934	124,236	64,479			
1962	1,308	47,033	42,276	256,620	59,119			
1963	1,560	80,767	52,103	514,596	90,103			
1964	2,082	76,541	64,654	443,086	44,218			
1965	1,802	87,749	75,728	625,848	27,658			
1966	1,665	89,847	62,823	400,932	40,756			
1967	1,318	86,385	17,670	91,609	26,370			
1968	1,316	64,671	67,151	169,107	61,366			
1969	877	70,484	10,305	198,785	10,930	613	31.0	2,111
1970	782	42,809	35,188	95,173	32,245	586	41.0	1,863
1971	1,336	53,262	48,085	528,737	37,682	897	50.0	2,773
1972	2,548	101,958	92,283	89,510	72,389	1,090	42.0	3,320
1973	1,961	72,025	38,447	304,536	87,704	1,244	26.0	3,299
1974	1,929	57,498	45,595	104,596	50,402	1,216	28.0	2,178
1975	2,587	32,099	30,962	203,031	24,047	856	17.0	1,648
1976	386	15,493	19,126	139,641	6,868	375	22.0	827
1977	671	67,394	8,389	422,955	13,311	449	28.0	1,381
1978	2,682	41,574	55,578	224,715	16,545	791	26.5	1,509
1979	2,720	66,373	31,454	648,212	35,507	1,162	25.0	2,702
1980	580	107,422	16,666	45,662	26,291	591	25.0	1,324
1981	1,565	182,001	22,614	437,573	34,296	1,160	26.0	2,925
1982	1,648	193,801	31,584	25,533	18,646	831	23.0	1,699
1983	567	48,842	62,442	208,290	20,144	728	32.0	1,452
1984	892	91,653	41,359	343,255	70,303	763	32.0	1,814
1985	1,687	264,987	91,188	584,953	69,673	1,196	32.0	2,672
1986	1,704	145,709	194,912	308,484	82,289	1,530	32.0	3,509
1987	836	136,427	34,534	243,482	42,025	982	20.0	1,766
1988	1,104	92,529	13,103	69,559	69,620	830	19.0	1,494
1989	1,544	192,734	92,385	1,101,194	67,351	1,253	34.0	3,221
1990	2,108	185,805	164,235	319,186	73,232	1,476	34.0	3,501
1991	2,055	144,104	198,160	133,566	124,630	1,554	39.0	3,620
1992	1,355	203,155	298,935	94,248	140,468	1,543	40.0	4,229
1993	992	205,955	231,038	537,960	134,601	1,772	38.0	4,352
1994	754	211,048	267,862	179,994	176,026	1,593	43.0	4,467
1995	951	207,298	170,561	448,163	300,078	1,517	34.0	3,656
1996	644	311,100	223,640	188,035	283,290	1,661	46.0	5,289
1997	1,075	168,518	77,550	789,051	186,456	1,357	39.0	3,667
1998	518	113,435	273,197	502,655	332,022	1,586	43.0	4,397
1999	518	104,835	203,301	491,179	448,409	1,609	49.0	4,854
2000	1,220	90,076	96,207	156,619	199,836	1,016	33.0	2,408
2001	1,138	164,013	188,465	825,447	283,462	1,291	50.0	3,853
2002	446	56,135	226,560	82,951	112,541	1,009	47.0	2,683
2003	422	116,904	212,057	470,697	300,253	1,095	59.0	3,803
2004	2,735	116,259	138,631	245,237	110,574	848	55.0	2,735
2005	1,572	110,192	114,440	461,187	198,564	947	53.0	2,963
2006	1,948	91,980	69,015	149,907	268,436	728	45.0	2,035
2007	2,144	92,481	80,573	383,355	297,998	913	49.0	2,740
2008	1,619	30,533	116,074	90,217	102,156	734	46.0	2,195
2009	2,138	111,984	144,569	143,589	287,707	1,122	45.0	3,252
60-08	1,354	109,487	97,232	316,425	109,712	1,085	36	2,823
99-08	1,376	97,341	144,532	335,680	232,223	1,019	49	3,027

Appendix B. 2. Historic salmon harvest and effort in the Alaskan District 108 commercial gillnet fishery, 1962–2009.

	Harvest							Effort
Year	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Permit Days
1962	618	4,430	3,921	2,889	2,035			
1963	1,431	9,979	11,612	10,198	11,024			
1964	2,911	20,299	29,388	114,555	10,771			
1965	3,106	21,419	8,301	4,729	2,480			
1966	4,516	36,710	16,493	61,908	17,730			
1967	6,372	29,226	6,747	4,713	5,955			
1968	4,604	14,594	36,407	91,028	14,537			
1969	5,021	19,211	5,791	11,962	2,318	359	55	1,084
1970	3,199	15,121	18,529	20,523	12,304	418	54	1,222
1971	3,717	18,143	14,876	22,216	4,665	363	57	1,061
1972	9,342	51,725	38,440	17,197	17,442	695	64	2,094
1973	9,254	21,393	5,837	6,585	6,680	584	39	1,519
1974	8,199	2,428	16,021	4,188	2,107	564	31	1,240
1975	1,529	0	0	0	1	172	8	257
1976	1,123	18	6,074	722	124	210	20	372
1977	1,443	48,385	14,424	16,318	4,233	321	23	742
1978	531	56	32,650	1,157	1,001	255	12	565
1979	91	2,158	234	13,478	1,064	37	5	94
1980	631	14,053	2,946	7,224	6,910	161	22	327
1981	283	8,833	1,403	1,466	3,594	110	11	217
1982	1,052	7,136	20,003	16,174	734	250	21	494
1983	47	178	15,369	4,171	675	101	17	260
1984	14	1,290	5,141	4,960	1,892	28	16	88
1985	20	1,060	1,926	5,325	1,892	25	13	45
1986	102	4,185	7,439	4,901	5,928	83	25	216
1987	149	1,620	1,015	3,331	949	45	13	81
1988	206	1,246	12	144	3,109	30	8	60
1989	310	10,083	4,261	27,640	3,375	90	29	223
1990	557	11,574	8,218	13,822	9,382	157	34	359
1991	1,366	17,987	15,629	6,406	5,977	264	49	846
1992	967	52,717	22,127	66,742	15,458	445	51	1,812
1993	1,628	76,874	14,307	39,661	22,504	556	48	2,220
1994	1,996	97,224	44,891	35,405	27,658	721	58	3,011
1995	1,702	76,756	17,834	37,788	54,296	593	50	2,581
1996	1,717	154,150	19,059	37,651	135,623	694	57	3,228
1997	2,566	93,039	2,140	65,745	38,913	582	44	2,537
1998	460	22,031	19,206	39,246	41,057	355	45	1,073
1999	1,049	36,601	28,437	48,552	117,196	630	54	2,209
2000	1,671	15,833	5,651	9,497	40,337	265	35	714
2001	7	610	10,731	11,012	5,397	112	34	377
2002	25	208	21,131	4,578	2,017	100	30	323
2003	312	42,158	38,795	76,113	51,701	364	56	1,454
2004	7,410	103,392	26,617	20,439	37,996	529	53	2,058
2005	26,970	99,465	42,203	106,395	150,121	1,318	78	4,591
2006	30,033	61,298	34,430	56,810	343,827	1,374	64	4,032
2007	17,463	70,580	19,880	39,872	177,573	1,120	56	2,722
2008	14,599	35,679	34,479	18,105	81,876	1,207	58	3,083
2009	2,830	36,680	30,860	27,010	190,800	693	47	2,287
60-08	3,879	30,493	15,979	25,820	32,009	407	37	1,287
99-08	9,306	45,682	26,656	38,035	108,986	701	51	2,168

Appendix B. 3. Annual harvest of large Stikine Chinook salmon in the US gillnet, troll, recreational, and subsistence and estimates of Stikine River bound Chinook salmon in District 108, 2005–2009.

GSI used for sport and gillnet. Troll is based on CWT.

Year		D108 Large Stikine Chinook			Total Large
year	Subsistence	Sport	Gillent	Troll	Stikine Chinook
2005	15	3,665	21,233	2,969	27,882
2006	37	3,346	17,259	1,418	22,060
2007	36	2,218	7,057	1,574	10,885
2008	26	1,453	4,905	951	7,335
2009	31	887	244	188	1,350

Appendix B. 4. Chinook salmon harvest in the Alaskan District 106 and 108 test fisheries, 1984–2009.

Table only includes years when test fisheries were operated.

	Large Chinook			
Year	Total 106	106-41/42	106-30	108
1984	13	13		37
1985	16	16		33
1986	47	23	24	79
1987	25	24	1	30
1988	21	11	10	65
1989	15	11	4	15
1990	13	13		19
1991				21
1992				26
1993				30
1994	0	0		

1998				0
1999				29
2000				21

Appendix B. 5. Chinook salmon harvest in the Canadian commercial and recreational fisheries in the Stikine River, 1979–2009.

	LRCF						URCF		Telegraph aboriginal		Tahltan sport fishery		Total	
			Large		Non-Large									
Year	Large	Non-large	Released	morts	Released	morts	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large
1972													0	
1973									200				200	0
1974									100				100	0
1975							178		1,024				1,202	0
1976							236		924				1,160	0
1977							62		100				162	0
1978							100		400				500	0
1979[b]	712	63							850		74	10	1,636	73
1980	1,488						156		587		136	18	2,367	18
1981	664						154		586		213	28	1,617	28
1982	1,693						76		618		181	24	2,568	24
1983	492	430					75		851	215	38	5	1,456	650
1984[c]									643	59	83	11	726	70
1985	256	91					62		793	94	92	12	1,203	197
1986	806	365					104	41	1,026	569	93	12	2,029	987
1987	909	242					109	19	1,183	183	138	18	2,339	462
1988	1,007	201					175	46	1,178	197	204	27	2,564	471
1989	1,537	157					54	17	1,078	115	132	18	2,801	307
1990	1,569	680					48	20	633	259	129	17	2,379	976
1991	641	318					117	32	753	310	129	17	1,640	677
1992	873	89					56	19	911	131	181	24	2,021	263
1993	830	164					44	2	929	142	386	52	2,189	360
1994	1,016	158					76	1	698	191	218	29	2,008	379
1995	1,067	599					9	17	570	244	107	14	1,753	874
1996	1,708	221					41	44	722	156	162	22	2,633	443
1997	3,283	186					45	6	1,155	94	188	25	4,671	311
1998	1,614	328					12	0	538	95	165	22	2,329	445
1999	2,127	789					24	12	765	463	166	22	3,082	1,286
2000	1,970	240					7	2	1,109	386	226	30	3,312	658
2001	826	59					0	0	665	44	190	12	1,681	115
2002	433	209					2	3	927	366	420	46	1,782	624
2003	695	672					19	12	682	373	167	46	1,563	1,103
2004	2,481	2,070					0	1	1,425	497	91	18	3,997	2,586
2005	19,070	1,181					28	1	800	94	118		20,016	1,276
2006	15,098	1,955					22	1	616	122	40		15,776	2,078
2007	10,131	1,469					10	25	364	233	0		10,505	1,727
2008	7,051	908					40	9	769	150	46		7,906	1,067
2009	1,587	498	339	170	153	77	11	26	496	136	20		2,284	737
Averages														
85-08	3,208	556					46	14	845	229	158		4,257	820
99-08	5,934	926					14	8	785	240	132		6,882	1,197

Appendix B. 6. Chinook salmon harvest and effort in Canadian test fisheries in the Stikine River, 1985–2009.

	Drift		Set		Additional drift		Commercial license		Tuya		Total	
Year	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large	Large	Non-large
1985											0	0
1986	27	12									27	12
1987[b]	128		61								189	0
1988	168	14	101	15							269	29
1989	116	4	101	20							217	24
1990	167	6	64	12							231	18
1991	90	1	77	15							167	16
1992	135	27	62	21	417	134					614	182
1993	94	11	85	11	389	65					568	87
1994	43	4	74	34	178	40					295	78
1995	18	13	61	35	169	136					248	184
1996	42	5	64	40	192	31					298	76
1997	30	7									30	7
1998	25	11									25	11
1999	53	43	49	16	751	38					853	97
2000	59	4	87	0	787	14					933	18
2001	128	3	56	7	1,652	49					1,836	59
2002	63	50	48	56	1,545	217					1,656	323
2003	64	62	14	91	1,225	617					1,303	770
2004	29	41	22	39	0	0					51	80
2005	14	8	19	13	0	0					33	21
2006	0	0	0	0	0	0					0	0
2007	2	0	3	0	0	0					5	0
2008	7	2	6	8	0	0			13		26	10
2009	3	0	0	0	0	0			29	0	32	0
Averages												
85-08	65	15	53	23	487	89					429	91
99-08	42	21	30	23	596	94					670	138

Appendix B. 7. Index counts of Stikine large Chinook escapements, 1979–2009.

Inriver run and escapement generated from mark-recapture studies, inriver and marine harvest as reported in ADF&G fisheries data series reports

Total run from jointly accepted US and Canadian harvest estimates. Terminal run includes only harvest in the Stikine River and District 108.

	Inriver	Inriver		Marine	Terminal	% to	Little Tahltan		Tahltan	Beatty	Andrew	Andrew
Year	Run	harvest	scapemen	harvest	Run	ttle Tahlt	Weir	Aerial	Aerial	Aerial	Creek	Comments
1979								1,166	2,118		327	Weir inc. broodstoc
1980								2,137	960	122	282	Weir inc. broodstoc
1981								3,334	1,852	558	536	Weir inc. broodstoc
1982								2,830	1,690	567	672	Weir inc. broodstoc
1983								594	453	83	366	Weir inc. broodstoc
1984								1,294		126	389	Weir inc. broodstoc
1985							3,114	1,598	1,490	147	320	Foot
1986							2,891	1,201	1,400	183	708	Foot
1987							4,783	2,706	1,390	312	788	Heli
1988							7,292	3,796	4,384	593	564	Foot
1989							4,715	2,527		362	900	Aerial
1990							4,392	1,755	2,134	271	664	Foot
1991							4,506	1,768	2,445	193	400	Aerial
1992							6,627	3,607	1,891	362	778	Heli
1993							11,437	4,010	2,249	757	1,060	Foot
1994							6,373	2,422		184	572	Heli
1995							3,072	1,117	696	152	355	Foot
1996	31,718	2,931	28,787			0.167	4,821	1,920	772	218	335	Heli
1997	31,509	4,701	26,808			0.207	5,547	1,907	260	218	293	Foot
1998	28,133	2,354	25,779			0.189	4,873	1,385	587	125	487	Foot
1999	23,716	3,935	19,781			0.239	4,733	1,379			605	Aerial
2000	30,301	4,245	26,056			0.254	6,631	2,720			840	Aerial
2001	66,646	3,517	63,129			0.154	9,730	4,258			1,130	Aerial
2002	53,893	3,438	50,455	3,587	57,480	0.148	7,476	urvey time due to weather			876	Aerial
2003	49,881	2,866	47,015	3,895	53,776	0.138	6,492	1,903			907	Foot
2004	52,538	4,048	48,490	9,599	62,137	0.338	16,381	6,014			1,844	Foot
2005	59,885	20,049	39,836	27,882	87,767	0.182	7,253				1,701	Foot
2006	40,181	15,776	24,405	22,060	62,241	0.158	3,860				2,212	Foot
2007	25,069	10,510	14,559	10,885	35,954	0.039	562				890	Aerial
2008	26,284	7,932	18,352	7,335	33,619	0.145	2,663				503	Heli
2009	15,118	2,315	12,803	1,350	16,468	0.175	2,245				440	Aerial
Averages												
96-08	39,981	6,639	33,342			0.181	6,232					
99-08	42,839	7,632	35,208	12,178	56,139	0.180	6,578					

Appendix B. 8. General stock proportions and harvest of sockeye salmon in the Alaskan commercial gillnet fishery; District 106 & 108, 1982–2009.

	D106			D106-41/42			D106-30			D108		
Year	Alaska	Canada	Total Stikine	Alaska	Canada	Total Stikine	Alaska	Canada	Total Stikine	Alaska	Canada	Total Stikine
1982	0.486	0.319	0.194									
1983	0.668	0.217	0.116									
1984	0.658	0.269	0.074									
1985	0.479	0.419	0.102	0.480	0.401	0.119	0.477	0.453	0.070	0.064	0.000	0.936
1986	0.689	0.293	0.018	0.662	0.308	0.030	0.726	0.272	0.002	0.206	0.017	0.777
1987	0.827	0.155	0.017	0.816	0.166	0.018	0.844	0.140	0.016	0.125	0.000	0.875
1988	0.874	0.106	0.020	0.868	0.112	0.020	0.883	0.095	0.021	0.213	0.039	0.749
1989	0.657	0.311	0.032	0.653	0.303	0.044	0.662	0.322	0.016	0.117	0.054	0.829
1990	0.608	0.371	0.021	0.579	0.395	0.026	0.645	0.340	0.015	0.395	0.128	0.477
1991	0.545	0.331	0.124	0.460	0.377	0.163	0.683	0.257	0.060	0.173	0.118	0.709
1992	0.595	0.232	0.172	0.582	0.241	0.177	0.630	0.211	0.159	0.163	0.051	0.786
1993	0.400	0.338	0.262	0.369	0.327	0.304	0.451	0.357	0.192	0.231	0.114	0.655
1994	0.579	0.254	0.167	0.531	0.271	0.198	0.718	0.207	0.075	0.326	0.208	0.466
1995	0.316	0.560	0.124	0.287	0.565	0.149	0.370	0.551	0.079	0.135	0.204	0.661
1996	0.531	0.268	0.201	0.479	0.245	0.276	0.665	0.326	0.010	0.102	0.082	0.816
1997	0.576	0.271	0.153	0.538	0.269	0.193	0.668	0.276	0.056	0.058	0.131	0.812
1998	0.598	0.307	0.095	0.550	0.337	0.113	0.710	0.237	0.053	0.115	0.108	0.777
1999	0.671	0.092	0.237	0.618	0.101	0.281	0.795	0.072	0.133	0.144	0.036	0.820
2000	0.643	0.233	0.124	0.611	0.223	0.167	0.702	0.252	0.046	0.204	0.128	0.669
2001	0.525	0.332	0.143	0.493	0.336	0.171	0.574	0.327	0.099	0.775	0.098	0.126
2002	0.758	0.098	0.144	0.730	0.101	0.169	0.824	0.091	0.085	0.875	0.120	0.005
2003	0.742	0.096	0.162	0.700	0.095	0.204	0.872	0.100	0.029	0.227	0.118	0.655
2004	0.499	0.222	0.279	0.413	0.227	0.359	0.741	0.206	0.053	0.100	0.030	0.869
2005	0.474	0.317	0.209	0.405	0.338	0.256	0.689	0.250	0.061	0.128	0.178	0.694
2006	0.364	0.362	0.274	0.270	0.332	0.398	0.527	0.415	0.059	0.067	0.130	0.803
2007	0.471	0.120	0.409	0.367	0.126	0.507	0.846	0.098	0.057	0.179	0.133	0.688
2008	0.281	0.164	0.555	0.177	0.151	0.672	0.500	0.190	0.309	0.089	0.110	0.801
2009	0.402	0.215	0.382	0.326	0.214	0.460	0.613	0.219	0.168	0.073	0.110	0.817
Averages												
83-08	0.575	0.260	0.172	0.519	0.262	0.219	0.672	0.251	0.077	0.211	0.098	0.691
99-08	0.543	0.214	0.324	0.380	0.212	0.408	0.684	0.211	0.105	0.123	0.115	0.761
1982	94,276	61,854	37,671									
1983	32,603	10,589	5,650									
1984	60,278	24,624	6,751									
1985	126,914	111,015	27,058	82,563	68,962	20,563	44,351	42,053	6,495	68	0	992
1986	100,337	42,685	2,687	56,462	26,214	2,571	43,875	16,471	116	862	71	3,252
1987	112,893	21,190	2,344	64,582	13,170	1,413	48,311	8,020	931	203	0	1,418
1988	80,868	9,784	1,877	49,776	6,426	1,135	31,092	3,358	742	265	48	933
1989	126,603	59,959	6,172	70,436	32,663	4,787	56,167	27,296	1,385	1,180	545	8,358
1990	112,983	68,921	3,901	60,795	41,415	2,712	52,188	27,506	1,189	4,576	1,479	5,519
1991	78,533	47,707	17,864	41,123	33,644	14,588	37,410	14,063	3,277	3,116	2,117	12,754
1992	120,977	47,207	34,971	85,364	35,277	25,967	35,613	11,930	9,004	8,604	2,696	41,417
1993	82,300	69,617	54,037	47,970	42,450	39,438	34,330	27,167	14,599	17,758	8,742	50,374
1994	122,118	53,683	35,247	83,692	42,620	31,214	38,426	11,063	4,033	31,715	20,250	45,259
1995	65,544	116,075	25,679	38,343	75,505	19,865	27,201	40,570	5,814	10,374	15,641	50,741
1996	165,221	83,271	62,608	107,193	54,823	61,768	58,028	28,448	840	15,755	12,618	125,777
1997	97,101	45,665	25,752	63,827	31,892	22,956	33,274	13,773	2,796	5,381	12,152	75,506
1998	67,890	34,811	10,734	43,479	26,661	8,912	24,411	8,150	1,822	2,541	2,376	17,114
1999	70,334	9,692	24,809	45,302	7,415	20,608	25,036	2,277	4,197	5,263	1,315	30,023
2000	57,935	20,996	11,145	35,327	12,875	9,661	22,608	8,121	1,484	3,226	2,019	10,588
2001	86,078	54,512	23,423	48,906	33,309	17,004	37,172	21,203	6,419	473	60	77
2002	42,573	5,487	8,075	28,487	3,928	6,615	14,086	1,559	1,460	182	25	1
2003	86,720	11,264	18,920	62,037	8,446	18,112	24,683	2,818	808	9,568	4,958	27,632
2004	58,006	25,787	32,467	35,521	19,534	30,874	22,485	6,253	1,593	10,375	3,136	89,882
2005	52,192	34,952	23,048	33,909	28,312	21,426	18,283	6,640	1,622	12,742	17,661	69,062
2006	33,454	33,337	25,189	15,750	19,394	23,215	17,704	13,943	1,975	4,088	7,973	49,237
2007	43,523	11,102	37,855	26,549	9,142	36,720	16,974	1,960	1,136	12,653	9,374	48,554
2008	8,593	4,997	16,943	3,649	3,117	13,886	4,944	1,880	3,057	3,189	3,919	28,571
2009	45,047	24,132	42,805	26,817	17,614	37,795	18,231	6,518	5,009	2,674	4,038	29,968
Averages												
83-08	80,994	41,511	21,588	51,293	28,216	19,000	32,027	14,438	3,200	6,840	5,382	33,043
99-08	52,119	22,493	21,896	32,237	15,340	19,724	19,882	7,153	2,173	6,277	5,458	35,956

Appendix B. 9. Stikine stock proportions and harvest of sockeye salmon in the Alaskan commercial gillnet fishery; Districts 106 & 108, 1982–2009.

	D106			D106-41/42			D106-30			D108		
Year	AllTahltan	Tuya	Mainstem	AllTahltan	Tuya	Mainstem	AllTahltan	Tuya	Mainstem	AllTahltar	Tuya	Mainstem
1982												
1983	0.103		0.013									
1984	0.029		0.044									
1985	0.091		0.011	0.109		0.010	0.056		0.013	0.292		0.644
1986	0.014		0.004	0.024		0.006	0.000		0.002	0.094		0.683
1987	0.010		0.007	0.015		0.003	0.004		0.012	0.438		0.437
1988	0.020		0.001	0.019		0.001	0.021		0.000	0.178		0.571
1989	0.006		0.026	0.009		0.036	0.002		0.015	0.034		0.795
1990	0.005		0.016	0.008		0.018	0.001		0.013	0.111		0.366
1991	0.100		0.024	0.129		0.034	0.052		0.008	0.395		0.314
1992	0.070		0.102	0.088		0.089	0.022		0.138	0.258		0.528
1993	0.098		0.164	0.134		0.169	0.036		0.156	0.256		0.399
1994	0.142		0.025	0.166		0.032	0.069		0.006	0.362		0.103
1995	0.081	0.001	0.043	0.099	0.001	0.048	0.047	0.000	0.032	0.455	0.006	0.200
1996	0.166	0.028	0.007	0.228	0.039	0.009	0.008	0.001	0.001	0.622	0.069	0.125
1997	0.058	0.079	0.016	0.079	0.101	0.014	0.009	0.026	0.021	0.362	0.261	0.189
1998	0.015	0.080	0.000	0.017	0.096	0.000	0.010	0.043	0.000	0.189	0.244	0.343
1999	0.057	0.061	0.118	0.074	0.079	0.128	0.018	0.020	0.095	0.414	0.201	0.205
2000	0.020	0.085	0.019	0.028	0.116	0.023	0.007	0.027	0.012	0.132	0.261	0.275
2001	0.039	0.079	0.025	0.032	0.112	0.028	0.049	0.029	0.021	0.000	0.005	0.121
2002	0.037	0.072	0.035	0.049	0.087	0.034	0.009	0.039	0.037	0.000	0.000	0.005
2003	0.075	0.053	0.035	0.097	0.068	0.040	0.005	0.005	0.019	0.179	0.062	0.414
2004	0.241	0.020	0.018	0.315	0.026	0.018	0.031	0.005	0.017	0.613	0.018	0.239
2005	0.182	0.000	0.027	0.227	0.000	0.029	0.041	0.000	0.020	0.457	0.000	0.257
2006	0.203	0.056	0.016	0.304	0.078	0.016	0.027	0.017	0.015	0.588	0.081	0.135
2007	0.322	0.082	0.005	0.403	0.099	0.005	0.028	0.021	0.007	0.474	0.147	0.067
2008	0.165	0.238	0.152	0.168	0.336	0.169	0.158	0.033	0.118	0.352	0.291	0.159
2009	0.215	0.090	0.077	0.287	0.104	0.068	0.016	0.050	0.103	0.360	0.225	0.232
Averages												
83-08	0.090	0.067	0.037	0.118	0.088	0.040	0.030	0.019	0.032	0.301	0.118	0.316
99-08	0.134	0.075	0.045	0.170	0.100	0.049	0.037	0.020	0.036	0.319	0.107	0.188
1982												
1983	5,020		631									
1984	2,673		4,078									
1985	24,045		3,013	18,801		1,762	5,244		1,251	310		683
1986	2,081		606	2,070		501	11		105	393		2,858
1987	1,376		968	1,155		258	221		710	710		708
1988	1,813		64	1,071		64	742		0	222		711
1989	1,111		5,061	957		3,830	154		1,231	341		8,017
1990	915		2,986	801		1,911	114		1,075	1,280		4,239
1991	14,364		3,501	11,541		3,048	2,823		453	7,112		5,642
1992	14,187		20,784	12,961		13,005	1,226		7,778	13,599		27,818
1993	20,204		33,833	17,446		21,992	2,758		11,841	19,688		30,686
1994	29,876		5,371	26,164		5,050	3,712		321	35,222		10,037
1995	16,715	125	8,839	13,292	125	6,448	6,220	0	2,391	34,950	461	15,330
1996	51,598	8,821	2,189	50,924	8,731	2,113	674	90	76	95,837	10,621	19,319
1997	9,764	13,232	2,756	9,327	11,937	1,692	437	1,295	1,064	33,644	24,288	17,574
1998	1,678	9,020	36	1,326	7,555	31	352	1,465	5	4,170	5,383	7,561
1999	5,986	6,424	12,399	5,421	5,782	9,405	563	641	2,993	15,156	7,371	7,497
2000	1,827	7,612	1,706	1,617	6,727	1,317	210	885	389	2,097	4,138	4,353
2001	6,339	12,965	4,119	3,164	11,063	2,777	3,175	1,902	1,342	0	3	74
2002	2,055	4,058	1,962	1,896	3,394	1,325	159	664	637	0	0	1
2003	8,736	6,145	4,039	8,595	6,016	3,501	141	129	538	7,562	2,615	17,455
2004	28,027	2,382	2,058	27,098	2,244	1,532	929	138	526	63,347	1,869	24,666
2005	20,080	0	2,968	18,979	0	2,447	1,101	0	521	43,467	0	25,595
2006	18,640	5,122	1,427	17,729	4,553	933	911	569	494	36,021	4,944	8,272
2007	29,759	7,612	484	29,196	7,182	342	563	430	142	33,439	10,398	4,716
2008	5,031	7,261	4,651	3,467	6,936	3,483	1,564	325	1,168	12,547	10,365	5,659
2009	24,085	10,080	8,640	23,623	8,589	5,583	462	1,491	3,057	13,188	8,271	8,508
Averages												
83-08	12,458	6,484	5,020	11,875	5,875	3,699	1,417	610	1,544	19,213	5,890	10,395
99-08	12,648	5,958	3,581	11,716	5,390	2,706	932	568	875	21,364	4,170	9,829

Appendix B. 10. Tahltan sockeye salmon stock proportions and harvest of in the Alaskan commercial gillnet fishery; Districts 106 & 108, 1994–2009.

	D106			D106-41/42			D106-30			D108		
Year	AllTahltan	TahltanEnhance	WildTahltan	AllTahltan	TahltanEnhance	WildTahltan	AllTahltan	TahltanEnhance	WildTahltan	AllTahltan	TahltanEnhance	WildTahltan
1994	0.142	0.033	0.108	0.166	0.040	0.127	0.069	0.015	0.055	0.362	0.116	0.246
1995	0.081	0.036	0.044	0.099	0.051	0.049	0.047	0.010	0.036	0.455	0.257	0.198
1996	0.166	0.019	0.147	0.228	0.025	0.203	0.008	0.002	0.006	0.622	0.070	0.552
1997	0.058	0.021	0.037	0.079	0.023	0.056	0.009	0.015	-0.006	0.362	0.102	0.260
1998	0.015	0.002	0.013	0.017	0.003	0.014	0.010	0.000	0.010	0.189	0.008	0.182
1999	0.057	0.003	0.054	0.074	0.004	0.070	0.018	0.001	0.017	0.414	0.024	0.390
2000	0.020	0.003	0.017	0.028	0.004	0.024	0.007	0.000	0.007	0.132	0.032	0.100
2001	0.039	0.010	0.029	0.032	0.015	0.017	0.049	0.002	0.047	0.000	0.000	0.000
2002	0.037	0.012	0.024	0.049	0.017	0.031	0.009	0.000	0.009	0.000	0.000	0.000
2003	0.075	0.036	0.039	0.097	0.047	0.050	0.005	0.001	0.004	0.179	0.087	0.092
2004	0.241	0.097	0.144	0.315	0.125	0.191	0.031	0.020	0.011	0.613	0.252	0.361
2005	0.182	0.094	0.088	0.227	0.123	0.104	0.041	0.002	0.039	0.437	0.258	0.179
2006	0.203	0.113	0.090	0.304	0.174	0.130	0.027	0.007	0.020	0.588	0.331	0.257
2007	0.322	0.200	0.122	0.403	0.251	0.152	0.028	0.015	0.013	0.474	0.324	0.150
2008	0.165	0.073	0.091	0.168	0.106	0.062	0.158	0.004	0.154	0.352	0.165	0.186
2009	0.215	0.063	0.152	0.287	0.084	0.203	0.016	0.004	0.012	0.360	0.097	0.262
Averages												
94-08	0.120	0.050	0.070	0.152	0.067	0.085	0.034	0.006	0.028	0.345	0.135	0.210
99-08	0.134	0.064	0.070	0.170	0.087	0.083	0.037	0.005	0.032	0.319	0.147	0.172
1994	29,876	7,019	22,857	26,164	6,230	19,934	3,712	789	2,923	35,222	11,286	23,936
1995	16,715	7,533	9,182	13,292	6,778	6,514	3,423	755	2,668	34,950	19,726	15,224
1996	51,598	5,772	45,826	50,924	5,584	45,340	674	188	486	95,837	10,796	85,041
1997	9,764	3,483	6,281	9,327	2,733	6,594	437	750	-313	33,644	9,500	24,144
1998	1,678	201	1,477	1,326	201	1,125	352	0	352	4,170	170	4,000
1999	5,986	288	5,698	5,421	266	5,155	563	22	541	15,156	877	14,279
2000	1,827	254	1,573	1,617	254	1,363	210	0	210	2,097	506	1,591
2001	6,339	1,592	4,747	3,164	1,441	1,723	3,175	151	3,024	0	0	0
2002	2,055	680	1,375	1,896	680	1,216	159	0	159	0	0	0
2003	8,736	4,186	4,550	8,595	4,161	4,434	141	25	116	7,562	3,666	3,896
2004	28,027	11,306	16,721	27,098	10,713	16,385	929	593	336	63,347	26,073	37,274
2005	20,080	10,356	9,724	18,979	10,292	8,687	1,101	64	1,037	43,467	25,614	17,853
2006	18,640	10,363	8,277	17,729	10,126	7,603	911	237	674	36,021	20,259	15,762
2007	29,759	18,506	11,253	29,196	18,198	10,998	563	308	255	33,439	22,867	10,572
2008	5,031	2,240	2,791	3,467	2,196	1,271	1,564	44	1,520	12,547	5,899	6,648
2009	24,085	7,053	17,032	23,623	6,938	16,685	462	115	346	13,188	3,560	9,628
Averages												
94-08	15,741	5,585	10,155	14,546	5,324	9,223	1,194	262	933	27,831	10,483	17,348
99-08	12,648	5,977	6,671	11,716	5,833	5,884	932	144	787	21,364	10,576	10,787

Appendix B. 11. Stikine River sockeye salmon harvest in the US Subsistence fishery, 2004–2009.

Stocks were proportioned based on using inriver stock comps

				Stikine					
Year	All Tahltan	Tuya	Mainstem	Total	All Tahltan	Tuya	Mainstem	TahltanEnhance	WildTahltan
2004	0.664	0.026	0.311	243	161	6	75	65	96
2005	0.662	0.020	0.318	252	167	5	80	77	90
2006	0.672	0.144	0.185	390	262	56	72	146	116
2007	0.541	0.165	0.294	244	132	40	72	67	65
2008	0.385	0.326	0.289	428	165	139	124	80	85
2009	0.541	0.244	0.215	723	391	176	156	101	290

Appendix B. 12. Stock proportions of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984–2009.

Table only includes years when test fisheries were operated and data based on SPA

			Stikine					
Year	Alaska	Canada	All Tahltan	Tuya	Mainstem	Total	ihltanEnhan	WildTahltan
Sub-district 106-41 (Sumner Strait) Proportions								
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.834	0.149	0.008		0.009	0.017		
1987	0.816	0.166	0.015		0.003	0.018		
1988	0.868	0.098	0.034		0.000	0.034		
1989	0.624	0.304	0.017		0.056	0.072		
1990	0.548	0.416	0.014		0.022	0.035		
—								
1994	0.500	0.250	0.250		0.000	0.250	0.083	0.167
Sub-district 106-41 (Sumner Strait) harvest								
1984	901	368	40		61	101		
1985	2,085	1,741	475		44	519		
1986	819	146	8		9	17		
1987	2,169	442	39		9	47		
1988	886	100	35		0	35		
1989	1,274	621	34		114	148		
1990	1,237	939	31		49	80		
—								
1994	6	3	3		0	3		
Sub-district 106-30 (Clarence Strait) Proportions								
1986	0.726	0.272	0.000		0.002	0.002		
1987	0.844	0.140	0.004		0.012	0.016		
1988	0.746	0.254	0.000		0.000	0.000		
1989	0.514	0.486	0.000		0.000	0.000		
Subdistrict 106-30 (Clarence Strait) harvest								
1986	263	99	0		1	1		
1987	758	126	3		11	15		
1988	12	4	0		0	0		
1989	19	18	0		0	0		
District 106 Proportions								
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.805	0.182	0.006		0.007	0.013		
1987	0.823	0.160	0.012		0.006	0.017		
1988	0.867	0.100	0.033		0.000	0.033		
1989	0.622	0.307	0.016		0.055	0.071		
1990	0.548	0.416	0.014		0.022	0.035		
—								
1994	0.500	0.250	0.250		0.000	0.250	0.000	0.250
District 106 harvest								
1984	901	368	40		61	101		
1985	2,085	1,741	475		44	519		
1986	1,082	245	8		9	17		
1987	2,928	568	42		20	62		
1988	898	104	35		0	35		
1989	1,293	639	34		114	148		
1990	1,237	939	31		49	80		
—								
1994	6	3	3		0	3	0	3
District 108 Proportions								
1985	0.064	0.000	0.292		0.644	0.936		
1986	0.134	0.044	0.486		0.336	0.822		
1987	0.125	0.000	0.438		0.437	0.875		
1988	0.205	0.049	0.132		0.614	0.746		
1989	0.132	0.084	0.072		0.712	0.784		
1990	0.417	0.172	0.094		0.318	0.411		
1991	0.128	0.128	0.494		0.251	0.745		
1992	0.149	0.076	0.333		0.442	0.774		
1993	0.168	0.109	0.475		0.248	0.719		
—								
1998	0.064	0.041	0.353	0.438	0.104	0.895	0.016	0.336
1999	0.162	0.019	0.481	0.298	0.041	0.820	0.028	0.453
2000	0.110	0.116	0.302	0.321	0.150	0.774	0.062	0.240
District 108 harvest								
1985	81	0	367		810	1,177		
1986	76	25	274		190	464		
1987	36	0	127		127	254		
1988	93	22	59		277	336		
1989	137	87	75		739	814		
1990	361	149	81		275	356		
1991	114	114	441		224	665		
1992	194	99	432		574	1,006		
1993	51	33	144		75	219		
—								
1998	224	145	1,238	1,538	365	3,141	57	1,181
1999	776	89	2,309	1,430	197	3,936	135	2,174
2000	516	544	1,416	1,505	705	3,626	291	1,125

Appendix B. 13. All harvest in of sockeye salmon in Canadian commercial and assessment fisheries, 1972–2009.

	Commercial/FN				Test					Tahltan Area		Tuya Area	
Year	LRCF	URCF	Telegraph aboriginal	Total Canadian treaty harvest	Drift Net	Set Net	Additional Drifts	Tuya Assesment	Test total	ESSR	Oto samples	ESSR	Oto samples
1972			4,373	4,373									
1973			3,670	3,670									
1974			3,500	3,500									
1975		270	1,982	2,252									
1976		733	2,911	3,644									
1977		1,975	4,335	6,310									
1978		1,500	3,500	5,000									
1979a	10,534		3,000	13,534									
1980	18,119	700	2,100	20,919									
1981	21,551	769	4,697	27,017									
1982	15,397	195	4,948	20,540									
1983	15,857	614	4,649	21,120									
1984			5,327	5,327									
1985	17,093	1,084	7,287	25,464		1,340			1,340				
1986	12,411	815	4,208	17,434	412				412				
1987	6,138	498	2,979	9,615	385	1,283			1,668				
1988	12,766	348	2,177	15,291	325	922			1,247				
1989	17,179	493	2,360	20,032	364	1,243			1,607				
1990	14,530	472	3,022	18,024	447	1,493			1,940				
1991	17,563	761	4,439	22,763	503	1,872			2,375				
1992	21,031	822	4,431	26,284	393	1,971	594		2,958				
1993	38,464	1,692	7,041	47,197	440	1,384	1,925		3,749	1,752		0	
1994	38,462	2,466	4,167	45,095	179	414	840		1,433	6,852		0	
1995	45,622	2,355	5,490	53,467	297	850	1,423		2,570	10,740		0	
1996	66,262	1,101	6,918	74,281	262	338	712		1,312	14,339		216	
1997	56,995	2,199	6,365	65,559	245				245		378	2,015	
1998	37,310	907	5,586	43,803	190				190		390	6,103	
1999	32,556	625	4,874	38,055	410	803	4,683		5,896		429	2,822	
2000	20,472	889	6,107	27,468	374	1,015	989		2,378		406	1,283	
2001	19,872	487	5,241	25,600	967	2,223	91		3,281		50	0	410
2002	10,420	484	6,390	17,294	744	3,540	128		4,412		400	0	501
2003	51,735	454	6,595	58,784	997	2,173	186		3,356		400	7,031	
2004	77,530	626	6,862	85,018	420	918	0		1,338		420	1,675	
2005	79,952	605	5,333	85,890	339	1,312	0		1,651		400	0	148
2006	95,791	520	5,094	101,405	299	629	0		928		400	0	0
2007	56,913	912	2,188	60,013	435	673	0		1,108		200	0	151
2008	28,636	505	4,510	33,651	241	870	0	1,955	3,066		100		280
2009	39,409	2,476	5,148	47,033	250	1,092	0	2,144	3,486		349		214
Averages													
85-08	36,488	922	4,986	42,395	420	1,298		1,955	2,103				
99-08	47,388	611	5,319	53,318	523	1,416	608	1,955	2,741		321		248

[a] The lower river commercial Harvest in 1979 includes the upper river commercial harvest

Appendix B. 14. Sockeye salmon stock proportions and harvest by stock in the Canadian commercial and assessment fishery in the Stikine River, 1979–2009.

Stock compositions based on: scale circuli counts 1970-1983; SPA in 1985; average of SPA and GPA 1986; SPA in 1987 and 1988; and egg diameter and otolith thermal marks in 1989-2009. stock comp comes from sampling at this terminal fishing site

	LRCF			URCF			Telegraph Aboriginal			LRTF			Tuya Assessment		
Year	All Tahltan	Tuya	Mainstem	All Tahltan	Tuya	Mainstem	All Tahltan	Tuya	Mainstem	All Tahltan	Tuya	Mainstem	All Tahltan	Tuya	Mainstem
1972							0.900	0.000	0.100						
1973							0.900	0.000	0.100						
1974							0.900	0.000	0.100						
1975				0.900	0.000	0.100	0.900	0.000	0.100						
1976				0.900	0.000	0.100	0.900	0.000	0.100						
1977				0.900	0.000	0.100	0.900	0.000	0.100						
1978				0.900	0.000	0.100	0.900	0.000	0.100						
1979	0.433		0.567				0.900	0.000	0.100						
1980	0.309		0.691	0.900	0.000	0.100	0.900	0.000	0.100						
1981	0.476		0.524	0.900	0.000	0.100	0.900	0.000	0.100						
1982	0.624		0.376	0.900	0.000	0.100	0.900	0.000	0.100						
1983	0.422		0.578	0.900	0.000	0.100	0.900	0.000	0.100						
1984							0.900	0.000	0.100						
1985	0.623		0.377	0.900	0.000	0.100	0.900	0.000	0.100	0.372		0.628			
1986	0.489		0.511	0.900	0.000	0.100	0.900	0.000	0.100	0.352		0.648			
1987	0.225		0.775	0.900	0.000	0.100	0.900	0.000	0.100	0.273		0.727			
1988	0.161		0.839	0.900	0.000	0.100	0.900	0.000	0.100	0.282		0.718			
1989	0.164		0.836	0.900	0.000	0.100	0.900	0.000	0.100	0.258		0.742			
1990	0.346		0.654	0.900	0.000	0.100	0.900	0.000	0.100	0.454		0.546			
1991	0.634		0.366	0.900	0.000	0.100	0.900	0.000	0.100	0.608		0.392			
1992	0.482		0.518	0.900	0.000	0.100	0.900	0.000	0.100	0.646		0.354			
1993	0.537		0.463	0.900	0.000	0.100	0.900	0.000	0.100	0.583		0.417			
1994	0.616		0.384	0.900	0.000	0.100	0.900	0.000	0.100	0.857		0.143			
1995	0.676	0.020	0.304	0.900	0.025	0.075	0.900	0.025	0.075	0.803	0.008	0.189			
1996	0.537	0.113	0.350	0.858	0.136	0.005	0.839	0.141	0.021	0.667	0.088	0.245			
1997	0.356	0.272	0.372	0.524	0.379	0.097	0.521	0.378	0.101	0.396	0.220	0.384			
1998	0.335	0.352	0.313	0.400	0.570	0.030	0.421	0.555	0.023	0.368	0.268	0.363			
1999	0.576	0.241	0.183	0.574	0.330	0.096	0.623	0.292	0.085	0.514	0.265	0.221			
2000	0.252	0.397	0.350	0.252	0.654	0.094	0.284	0.653	0.063	0.254	0.413	0.333			
2001	0.175	0.226	0.599	0.437	0.470	0.092	0.342	0.561	0.097	0.208	0.282	0.510			
2002	0.320	0.128	0.552	0.376	0.496	0.128	0.422	0.494	0.084	0.391	0.157	0.451			
2003	0.427	0.161	0.412	0.696	0.220	0.084	0.605	0.238	0.157	0.448	0.128	0.424			
2004	0.707	0.016	0.276	0.861	0.067	0.072	0.909	0.089	0.002	0.512	0.033	0.455			
2005	0.761	0.018	0.221	0.962	0.021	0.017	0.956	0.013	0.031	0.542	0.005	0.453			
2006	0.747	0.178	0.075	0.852	0.133	0.015	0.780	0.131	0.089	0.355	0.014	0.631			
2007	0.635	0.191	0.173	0.658	0.043	0.299	0.643	0.042	0.316	0.262	0.076	0.662			
2008	0.470	0.389	0.141	0.719	0.186	0.095	0.729	0.183	0.088	0.385	0.266	0.348	0.278	0.489	0.233
2009	0.601	0.250	0.149	0.668	0.303	0.029	0.686	0.281	0.033	0.323	0.187	0.490	0.220	0.714	0.067
Averages															
79-08	0.466			0.774	0.133	0.093	0.779	0.126	0.094	0.450		0.458			
99-08	0.507	0.195	0.298	0.639	0.262	0.099	0.629	0.270	0.101	0.387	0.164	0.449			
1972							3,936		437						
1973							3,303		367						
1974							3,150		350						
1975				243		27	1,784		198						
1976				660		73	2,620		291						
1977				1,778		198	3,902		434						
1978				1,350		150	3,150		350						
1979	4,561		5,973				2,700		300						
1980	5,599		12,520	630		70	1,890		210						
1981	10,258		11,293	692		77	4,227		470						
1982	9,608		5,789	176		20	4,453		495						
1983	6,692		9,165	553		61	4,184		465						
1984							4,794		533						
1985	10,649		6,444	976		108	6,558		729	499		841			
1986	6,069		6,342	734		82	3,787		421	145		267			
1987	1,380		4,758	448		50	2,681		298	455		1,213			
1988	2,062		10,704	313		35	1,959		218	352		895			
1989	2,813		14,366	444		49	2,124		236	415		1,192			
1990	5,029		9,501	425		47	2,720		302	881		1,059			
1991	11,136		6,427	685		76	3,995		444	1,443		932			
1992	10,134		10,897	740		82	3,988		443	1,912		1,046			
1993	20,662		17,802	1,523		169	6,337		704	2,184		1,565			
1994	23,678		14,784	2,219		247	3,750		417	1,228		205			
1995	30,848	893	13,881	2,120	60	176	4,941	139	410	2,064	20	486			
1996	35,584	7,465	23,213	945	150	6	5,802	972	144	875	116	321			
1997	20,269	15,513	21,213	1,152	834	213	3,318	2,403	644	97	54	94			
1998	12,498	13,137	11,675	363	517	27	2,352	3,103	131	70	51	69			
1999	18,742	7,862	5,952	359	206	60	3,038	1,423	413	3,031	1,564	1,301			
2000	5,165	8,136	7,171	224	581	84	1,733	3,989	385	605	982	791			
2001	3,482	4,483	11,907	213	229	45	1,795	2,939	507	684	924	1,673			
2002	3,335	1,335	5,750	182	240	62	2,697	3,155	538	1,726	694	1,992			
2003	22,067	8,335	21,333	316	100	38	3,987	1,571	1,037	1,505	428	1,423			
2004	54,841	1,276	21,415	539	42	45	6,240	608	14	686	44	608			
2005	60,881	1,437	17,634	582	13	10	5,099	71	163	895	8	748			
2006	71,573	17,079	7,139	443	69	8	3,974	668	452	329	13	586			
2007	36,167	10,891	9,855	600	39	273	1,406	91	691	290	84	734			
2008	13,455	11,153	4,028	363	94	48	3,287	825	398	428	296	387	543	956	455
2009	23,666	9,852	5,891	1,654	749	73	3,530	1,449	169	434	251	657	471	1,530	144
Averages															
79-08	17,905		11,342	677		81	3,661		420	950		851			
99-08	28,971	7,199	11,218	382	161	67	3,326	1,534	460	1,018	504	1,024			

Appendix B. 15. Tahltan sockeye salmon stock proportions and harvest by stock in the Canadian commercial and assessment fishery in the Stikine River, 1979–2009.

Stock compositions based on: scale circuli counts 1979-1983, SPA in 1985, average of SPA and GPA 1986; stock comp comes from direct sampling of respective fisheries

	LRCF			URCF			Telegraph Aboriginal			URTF			Tuya Assessment		
Year	AllTahltan	TahltanEnhance	WildTahltan	AllTahltan	TahltanEnhance	WildTahltan	AllTahltan	TahltanEnhance	WildTahltan	AllTahltan	TahltanEnhance	WildTahltan	AllTahltan	TahltanEnhance	WildTahltan
1994	0.616	0.000	0.616	0.900	0.128	0.772	0.900	0.128	0.772	0.857	0.000	0.857			
1995	0.676	0.195	0.481	0.900	0.260	0.640	0.900	0.260	0.640	0.803	0.284	0.519			
1996	0.537	0.066	0.471	0.858	0.110	0.748	0.839	0.126	0.713	0.667	0.082	0.585			
1997	0.356	0.072	0.284	0.524	0.108	0.416	0.521	0.108	0.413	0.396	0.082	0.314			
1998	0.335	0.020	0.315	0.400	0.030	0.370	0.421	0.022	0.399	0.368	0.021	0.347			
1999	0.576	0.021	0.554	0.574	0.005	0.570	0.623	0.028	0.596	0.514	0.019	0.495			
2000	0.252	0.039	0.213	0.252	0.000	0.252	0.284	0.009	0.275	0.254	0.040	0.215			
2001	0.175	0.032	0.143	0.437	0.133	0.304	0.342	0.065	0.277	0.208	0.038	0.171			
2002	0.320	0.074	0.246	0.376	0.087	0.289	0.422	0.095	0.327	0.391	0.091	0.300			
2003	0.427	0.131	0.296	0.696	0.214	0.482	0.605	0.201	0.403	0.448	0.111	0.337			
2004	0.707	0.285	0.422	0.861	0.380	0.481	0.909	0.371	0.538	0.512	0.207	0.305			
2005	0.761	0.352	0.409	0.962	0.240	0.722	0.956	0.235	0.721	0.542	0.198	0.344			
2006	0.747	0.416	0.331	0.852	0.421	0.431	0.780	0.382	0.398	0.355	0.197	0.158			
2007	0.635	0.321	0.315	0.658	0.235	0.423	0.643	0.237	0.406	0.262	0.105	0.157			
2008	0.470	0.228	0.242	0.719	0.121	0.598	0.729	0.121	0.608	0.385	0.183	0.203	0.278	0.122	0.156
2009	0.601	0.155	0.445	0.668	0.157	0.511	0.686	0.143	0.542	0.323	0.093	0.230	0.220	0.038	0.182
Averages															
99-08	0.507	0.190	0.317	0.639	0.184	0.455	0.629	0.174	0.455	0.387	0.119	0.268	0.278	0.122	0.156
1994	23,678			2,219	315	1,904	3,750	533	3,217	1,228					
1995	30,848	8,912	21,936	2,120	612	1,508	4,941	1,427	3,514	2,064	729	1,335			
1996	35,584	4,387	31,197	945	121	824	5,802	871	4,931	875	108	767			
1997	20,269	4,094	16,175	1,152	238	914	3,318	687	2,631	97	20	77			
1998	12,498	747	11,751	363	27	336	2,352	125	2,227	70	4	66			
1999	18,742	696	18,046	359	3	356	3,038	135	2,903	3,031	113	2,918			
2000	5,165	801	4,364	224	0	224	1,733	52	1,681	605	94	511			
2001	3,482	632	2,850	213	65	148	1,795	341	1,454	684	124	560			
2002	3,335	776	2,559	182	42	140	2,697	605	2,092	1,726	402	1,324			
2003	22,067	6,763	15,304	316	97	219	3,987	1,328	2,659	1,505	374	1,131			
2004	54,841	22,124	32,717	539	238	301	6,240	2,549	3,691	686	277	409			
2005	60,881	28,174	32,707	582	145	437	5,099	1,254	3,845	895	327	568			
2006	71,573	39,888	31,685	443	219	224	3,974	1,946	2,028	329	183	146			
2007	36,167	18,266	17,901	600	214	386	1,406	518	888	290	116	174			
2008	13,455	6,533	6,922	363	61	302	3,287	547	2,740	428	203	225	543	239	304
2009	23,666	6,124	17,542	1,654	390	1,264	3,530	738	2,791	434	125	309	471	81	390
Averages															
99-08	29,463	13,008	16,455	512	147	365	3,375	988	2,387	758	222	536			

Appendix B. 16. Tahltan Lake weir data with enhanced and wild Tahltan fish, 1979–2009.

	Weir count			Actual escapement			Broodstock taken			Sockeye otolith samples			Total spawners		
Year	Total Count	TahltanEnhance	WildTahltan	TotalEscapement	TahltanEnhance	WildTahltan	Total	TahltanEnhance	WildTahltan	Total	TahltanEnhance	WildTahltan	Total	TahltanEnhance	WildTahltan
1979	10,211			10,211											
1980	11,018			11,018											
1981	50,790			50,790											
1982	28,257			28,257											
1983	21,256			21,256											
1984	32,777			32,777											
1985	67,326			67,326											
1986	20,280			20,280											
1987	6,958			6,958											
1988	2,536			2,536											
1989	8,316			8,316			2,210								
1990	14,927			14,927			3,302								
1991	50,135			50,135			3,552								
1992	59,907			59,907			3,694								
1993	53,362	1,167	52,195	51,610	1,129	50,481	4,506	99	4,407				47,104	1,030	46,074
1994	46,363	7,919	38,444	39,511	6,749	32,762	3,378	577	2,801				36,133	6,172	29,961
1995	42,317	15,997	26,320	31,577	11,937	19,640	4,902	1,853	3,049				26,675	10,084	16,591
1996	52,500	6,121	46,379	38,161	4,449	33,712	4,402	513	3,889				33,759	3,936	29,823
1997	12,483	2,445	9,660	12,105	2,445	9,660	2,294	463	1,831	378	76	302	9,811	1,982	7,829
1998	12,658	691	11,577	12,268	691	11,577	3,099	75	3,024	390	26	364	9,169	616	8,553
1999	10,748	719	10,029	10,319	690	9,629	2,870	193	2,677	429	29	400	7,449	497	6,952
2000	6,076	1,230	4,846	5,670	1,148	4,522	1,717	347	1,370	406	82	324	3,953	801	3,152
2001	14,811	5,865	8,946	14,761	5,845	8,916	2,386	945	1,441	50	20	30	12,375	4,900	7,475
2002	17,740	5,212	9,408	14,220	5,097	9,123	3,051	1,298	1,753	400	115	285	11,169	3,799	7,370
2003	53,933	23,595	30,338	53,533	23,420	30,113	3,946	1,726	2,220	400	175	225	49,587	21,694	27,893
2004	63,372	31,439	31,933	62,952	31,244	31,708	4,243	1,250	2,993	420	195	225	58,709	29,994	28,715
2005	43,446	17,928	25,518	43,046	17,770	25,276	3,424	1,350	2,074	400	158	242	39,622	16,420	23,202
2006	53,855	25,966	27,889	53,455	25,772	27,683	3,403	1,646	1,757	400	194	206	50,052	24,126	25,926
2007	21,074	8,966	12,108	20,874	8,881	11,993	2,839	1,208	1,631	200	85	115	18,035	7,673	10,362
2008	10,516	5,344	5,172	10,416	5,295	5,121	2,364	1,152	1,212	100	49	51	8,052	4,143	3,909
2009	30,673	5,030	25,643	30,324	4,971	25,353	3,011	930	2,081	349	59	290	27,313	4,041	23,272
Averages															
99-08	29,557	12,626	16,619	28,925	12,516	16,408	3,024	1,112	1,913	321	110	210	25,900	11,405	14,496

Appendix B. 17. Sockeye salmon harvest by stock in the Stikine River under Canadian ESSR licenses, 1992–2009.

	Tahltan Area ESSR License			Tuya Area ESSR		
Year	All Tahltan	TahltanEnhance	WildTahltan	Tuya	Total	otolith samples
1993	1,752	38	1,714		0	
1994	6,852	1,170	5,682		0	
1995	10,740	4,060	6,680		0	
1996	14,339	1,672	12,667	216	216	
1997				2,015	2,015	
1998				6,103	6,103	
1999				2,822	2,822	
2000				1,283	1,283	
2001					0	410
2002	3,120	1,061	2,059		0	501
2003				7,031	7,031	
2004				1,675	1,675	
2005					0	148
2006					0	0
2007					0	151
2008						280
2009						214

Appendix B. 18. Estimated proportion of inriver run comprised of Tahltan, Tuya, and mainstem sockeye salmon, 1979–2009

In 1979-1988, there were US estimates and 1983-1988, they overlapped with estimates from Canada and the All tahltan estimate was oftened averaged. The estimates are from the LRCC, test, or average of LRCC and Test.

Year	All Tahltan	Tuya	Mainstem	Type
1979	0.433		0.567	
1980	0.305		0.695	
1981	0.475		0.525	
1982	0.618		0.382	
1983	0.456		0.544	
1984	0.493		0.507	
1985	0.466		0.534	
1986	0.449		0.551	
1987	0.304		0.696	
1988	0.172		0.828	
1989	0.188		0.812	
1990	0.417		0.583	
1991	0.561		0.439	
1992	0.496		0.504	
1993	0.477		0.523	
1994	0.606		0.394	LRCC
1995	0.578	0.016	0.406	LRCC
1996	0.519	0.104	0.377	LRCC
1997	0.297	0.229	0.474	LRCC
1998	0.309	0.348	0.344	LRCC
1999	0.545	0.245	0.209	LRCC
2000	0.260	0.391	0.349	LRCC
2001	0.202	0.268	0.530	test
2002	0.360	0.141	0.498	test
2003	0.421	0.158	0.421	test
2004	0.664	0.026	0.311	LRCC
2005	0.662	0.020	0.318	LRCC
2006	0.672	0.144	0.185	LRCC
2007	0.541	0.165	0.294	LRCC
2008	0.385	0.326	0.289	average
2009	0.541	0.244	0.215	average
Averages				
79-08	0.444		0.470	
99-08	0.471	0.188	0.341	

Appendix B. 19. Aerial survey counts of Mainstem sockeye stocks in the Stikine River drainage, 1984–2009.

The index represents the combined counts from eight spawning areas.

Year	Chutine River	Scud River	Porcupine Slough	Christina Creek	Craig River	Bronson Slough	Verrett Creek	Verrett Slough	Escapement Index
1984	526	769	69	130	102		640		2,236
1985	253	282	69	67	27		383		1,081
1986	139	151	6	0	0		270		566
1987	6	490	62	6	30		103		697
1988	14	219	22	7	0		114		376
1989	29	269	133	10	60	60	180	68	809
1990	24	301	31	4	0	0	301	82	743
1991	0	100	61		7	32	179	8	387
1992	164	1,242	90	50	17	138	163	22	1,886
1993	57	321	141	28	2	79	107	142	877
1994	267	292	66			62	147	114	948
1995	13	260	11			72	47	31	434
1996	134	351	149			27	54	338	1,053
1997	204	271	25			12	116	32	660
1998	230	246	89			9	183	135	892
1999	56	301	64			54	98	78	651
2000	47	86	86			32	0	90	341
2001	601	2,037	268			163	217	232	3,518
2002	239	216	95			13	353	0	916
2003	240	71	239			0	54	0	604
2004	245	262	56			0	85	0	648
2005	66	124	111			23	158	76	558
2006	276	288	59			0	140	180	943
2007	0	17	34	0		3	45	21	120
2008	83	41	33	0		0	15	231	403
2009	51	45	0			0	17	0	113
Averages									
84-08	157	360	83			39	166	94	894
99-08	185	344	105			29	117	91	870

Appendix B. 20. Stikine River sockeye salmon run size, 1979–2009.

Harvest includes test and assesment fisheries and otolith samples and escapement includes fish later captured for broodstock

	Stikine River					All Tahltan				
Year	Inriver Run	Inriver Harvest	Escapement	Marine Harvest	Terminal Run	Inriver Run	Inriver Harvest	Escapement	Marine Harvest	Terminal Run
1979	40,353	13,534	26,819	8,299	48,652	17,472	7,261	10,211	5,076	22,548
1980	62,743	20,919	41,824	23,206	85,949	19,137	8,119	11,018	11,239	30,376
1981	138,879	27,017	111,862	27,538	166,417	65,968	15,178	50,790	16,189	82,157
1982	68,761	20,540	48,221	42,482	111,243	42,493	14,236	28,257	20,981	63,474
1983	71,683	21,120	50,563	5,774	77,457	32,684	11,428	21,256	5,075	37,759
1984	76,211	5,327	70,884	7,750	83,961	37,571	4,794	32,777	3,114	40,685
1985	184,747	26,804	157,943	29,747	214,494	86,008	18,682	67,326	25,197	111,205
1986	69,036	17,846	51,190	6,420	75,456	31,015	10,735	20,280	2,757	33,771
1987	39,264	11,283	27,981	4,077	43,342	11,923	4,965	6,958	2,255	14,178
1988	41,915	16,538	25,377	3,181	45,096	7,222	4,686	2,536	2,129	9,351
1989	75,058	21,639	53,419	15,492	90,550	14,111	5,795	8,316	1,561	15,672
1990	57,529	19,964	37,565	9,856	67,385	23,982	9,055	14,927	2,307	26,289
1991	120,153	25,138	95,015	31,284	151,437	67,394	17,259	50,135	21,916	89,311
1992	154,541	29,242	125,299	77,394	231,935	76,680	16,773	59,907	28,218	104,899
1993	176,100	52,698	123,402	104,630	280,730	84,068	32,458	51,610	40,036	124,104
1994	127,527	53,380	74,147	80,509	208,036	77,239	37,728	39,511	65,101	142,340
1995	142,308	66,777	75,531	76,420	218,728	82,290	50,713	31,577	54,462	136,752
1996	184,400	90,148	94,252	188,385	372,785	95,706	57,545	38,161	147,435	243,141
1997	125,657	68,197	57,460	101,258	226,915	37,319	25,214	12,105	43,408	80,727
1998	90,459	50,486	39,973	30,989	121,448	27,941	15,673	12,268	7,086	35,027
1999	65,879	47,202	18,677	58,765	124,644	35,918	25,599	10,319	23,449	59,367
2000	53,145	31,535	21,610	25,359	78,504	13,803	8,133	5,670	5,340	19,143
2001	103,755	29,341	74,414	23,500	127,255	20,985	6,224	14,761	6,339	27,324
2002	71,253	22,607	48,646	8,076	79,329	25,680	11,460	14,220	2,055	27,735
2003	194,425	69,571	124,854	46,552	240,977	81,808	28,275	53,533	16,298	98,106
2004	189,395	88,451	100,944	122,592	311,987	125,677	62,725	62,952	91,535	217,213
2005	167,570	88,089	79,482	92,362	259,932	110,903	67,857	43,046	63,714	174,617
2006	193,768	102,733	91,035	74,817	268,585	130,174	76,719	53,455	54,923	185,097
2007	110,132	61,472	48,660	86,654	196,786	59,537	38,663	20,874	63,330	122,867
2008	74,267	37,097	37,170	45,942	120,209	28,592	18,176	10,416	17,743	46,335
2009	111,780	51,082	60,699	73,495	185,276	60,428	30,104	30,324	37,664	98,092
Averages										
79-08	109,030	41,541	67,578	49,445	158,565	52,636	23,943	28,693	28,643	81,279
99-08	122,359	71,213	77,549	77,488	226,250	85,303	46,074	39,229	49,315	134,618

	Stikine Mainstem					Tuya				
Year	Inriver Run	Inriver Harvest	Escapement	Marine Harvest	Terminal Run	Inriver Run	Inriver Harvest	Escapement	Marine Harvest	Terminal Run
1979	22,880	6,273	16,608	3,223	26,103					
1980	43,606	12,800	30,806	11,967	55,573					
1981	72,911	11,839	61,072	11,349	84,260					
1982	26,267	6,304	19,964	21,501	47,768					
1983	38,999	9,692	29,307	699	39,698					
1984	38,640	533	38,107	4,636	43,276					
1985	98,739	8,122	90,617	4,550	103,289					
1986	38,022	7,111	30,910	3,663	41,685					
1987	27,342	6,318	21,023	1,822	29,164					
1988	34,693	11,852	22,841	1,052	35,745					
1989	60,947	15,844	45,103	13,931	74,878					
1990	33,547	10,909	22,638	7,549	41,096					
1991	52,759	7,879	44,880	9,368	62,126					
1992	77,861	12,469	65,392	49,176	127,037					
1993	92,033	20,240	71,792	64,594	156,627					
1994	50,288	15,652	34,636	15,408	65,696					
1995	57,802	14,953	42,850	21,372	79,174	2,216	1,112	1,104	586	2,802
1996	69,536	23,684	45,852	21,508	91,044	19,158	8,919	10,239	19,442	38,600
1997	59,600	22,164	37,436	20,330	79,930	28,738	20,819	7,919	37,520	66,258
1998	31,077	11,902	19,175	7,962	39,039	31,442	22,911	8,531	15,941	47,383
1999	13,797	7,726	6,071	20,092	33,889	16,165	13,877	2,288	15,224	31,389
2000	18,563	8,431	10,132	6,764	25,327	20,779	14,971	5,808	13,255	34,034
2001	54,987	14,132	40,855	4,193	59,180	27,783	8,985	18,798	12,968	40,751
2002	35,496	5,222	30,274	1,963	37,459	10,078	5,925	4,153	4,058	14,136
2003	81,803	23,831	57,972	21,494	103,297	30,814	17,465	13,349	8,760	39,574
2004	58,809	22,080	36,728	26,799	85,608	4,909	3,645	1,264	4,257	9,166
2005	53,343	18,555	34,788	28,517	81,860	3,325	1,677	1,648	131	3,456
2006	35,788	8,185	27,603	9,772	45,560	27,806	17,829	9,977	10,122	37,928
2007	32,418	11,553	20,865	5,274	37,692	18,176	11,256	6,920	18,050	36,227
2008	21,494	5,316	16,178	10,434	31,928	24,180	13,604	10,576	17,765	41,945
2009	24,082	6,933	17,149	17,304	41,385	27,271	14,045	13,226	18,527	45,798
Averages										
79-08	47,802	12,052	35,749	14,365	62,167					
99-08	40,650	12,503	28,147	13,530	54,180	18,401	10,923	7,478	10,459	28,861

Appendix B. 21. Coho salmon harvest in the Alaskan District 106 and 108 test fisheries, 1984–2009.

Table only includes years when test fisheries were operated.

Year	106-41/42	106-30	Total 106	108
1984	101		1,370	11
1985	301		4,345	11
1986	177		1,345	3
1987	799	95	3,558	13
1988	89	589	1,036	9
1989	275	412	2,080	45
1990	432	464	2,256	45
1991				18
1992				23
1993				0
1994			12	
—				142
1998				217
1999				140
2000				

Appendix B. 22. Annual harvest of coho salmon in the Canadian lower and upper river commercial, Telegraph aboriginal and the Canadian test fisheries, 1979–2009.

			Telegraph	Canada Total	Test				All
Year	LRCF	URCF	Aboriginal	Stikine Harvest	Drift	Set	Additional	Test Total	Harvest Total
1972			0	0				0	0
1973			0	0				0	0
1974			0	0				0	0
1975		45	5	50				0	50
1976		13	0	13				0	13
1977		0	0	0				0	0
1978		0	0	0				0	0
1979	10,720		0	10,720				0	10,720
1980	6,629	40	100	6,769				0	6,769
1981	2,667	0	200	2,867				0	2,867
1982	15,904	0	40	15,944				0	15,944
1983	6,170	0	3	6,173				0	6,173
1984			1	1				0	1
1985	2,172	0	3	2,175				0	2,175
1986	2,278	0	2	2,280	226			226	2,506
1987	5,728	0	3	5,731	162	620		782	6,513
1988	2,112	0	5	2,117	75	130		205	2,322
1989	6,092	0	6	6,098	242	502		744	6,842
1990	4,020	0	17	4,037	134	271		405	4,442
1991	2,638	0	10	2,648	118	127		245	2,893
1992	1,850	0	5	1,855	75	193	0	268	2,123
1993	2,616	0	0	2,616	37	136	2	175	2,791
1994	3,377	0	4	3,381	71	0	0	71	3,452
1995	3,418	0	0	3,418	35	166	26	227	3,645
1996	1,402	0	2	1,404	55	0	0	55	1,459
1997	401	0	0	401	11			11	412
1998	726	0	0	726	207			207	933
1999	181	0	0	181	312	64	16	392	573
2000	298	0	3	301	60	181	195	436	737
2001	233	0	0	233	257	1,078	426	1,761	1,994
2002	82	0	0	82	306	1,323	1,116	2,745	2,827
2003	190	0	0	190	291	525	883	1,699	1,889
2004	271	0	4	275	352	135	0	487	762
2005	276	0	0	276	444	271	0	715	991
2006	72	0	0	72	343	181	0	524	596
2007	50	0	2	52	89	99	0	188	240
2008	2,398	0	0	2,398	321	216	0	537	2,935
2009	5,981	0	0	5,981	348	146	0	494	6,475
Averages									
85-08	1,787	0	3	1,789	184	311	178	546	2,336
99-08	405	0	1	406	278	407	264	948	1,354

Appendix B. 23. Index counts of Stikine coho salmon escapements, 1984–2009.

Missing data due to poor survey conditions.

Year	Date	Katete West	Katete	Craig	Verrett	Bronson Slough	Scud Slough	Porcupine	Christina	Total
1984	10/30	147	313	0	15	42				517
1985	10/25	590	1,217	735	39	0	924	365		3,870
1988	10/28	32	227		175		97	53	0	584
1989	10/29	336	896	992	848	120	707	90	55	4,044
1990	10/30	94	548	810	494		664	430		3,040
1991	10/29	302	878	985	218		221	352		2,956
1992	10/29	295	1,346	949	320		462	316		3,688
1993	10/30						206	324		
1994	11/1-2	28	652	1,026	466		448	1,105		3,725
1995	10/30	211	208	1,419	574		621	719		3,752
1996	10/30	163	232	205	549		630	1,466		3,245
1997	11/01	2	0	19	116		272	648		1,057
1998	10/30	14	63	141	282		143	450		1,093
1999	11/05	163	773	891	490		661	894		3,872
2000	11/2-3				5		95	206		306
2001	11/2-3	207	1,401	3,121	708		1,571	397		7,405
2002	11/05	806	2,642	4,488	1,695		1,389	1,626		12,646
2003										
2004[a]	11/03	78	762	19	959		173	1,009		3,000
2005	10/31	300	1,195	444	353		218	689		3,199
2006	11/02	350	543	675	403		95	147		2,213
2007	11/10	66	190	567	240		153	341		1,557
2008[b]	11/01-05			535	501		86	25		1,147
2009	11/02	212	698	475	257		16	617		2,275
Average										
84-08		224	765	1,001	472		468	555		3,320
99-08		281	1,072	1,343	595		493	593		3,927

[a] Veiwing conditions at the Craig River site were poor in 2004 and 2010.

[b] West Katete and Katete not survey due to inclement weather

[c] aborted to due ice condtions and inclement weather

Appendix B. 24. Effort in the Canadian fisheries, including assessment fisheries in the Stikine River, 1979–2009.

	LRCF		URCF		Test Fisheries			
					Standard test fisheries		Chinook assessment a	
Year	Days	Permit Days	Days	Permit Days	# of Drift	Set hours	Days	Permit Days
1979[b]	42.0	756						
1980	41.0	668						
1981	32.0	522	5.0	11.0				
1982	71.0	1,063	4.0	8.0				
1983	54.0	434	8.0	10.0				
1984		no fisheries						
1985	22.5	146	6.0	14.0				
1986	13.5	239	7.0	19.0	405			
1987	20.0	287	7.0	20.0	845	1,456		
1988	26.5	320	6.5	21.5	720	1,380		
1989	23.0	325	7.0	14.0	870	1,392		
1990	29.0	328	7.0	15.0	673	1,212		
1991	39.0	282	6.0	13.0	509	1,668		
1992	55.0	235	13.0	28.0	312	1,249		
1993	58.0	484	22.0	48.0	304	1,224		
1994	74.0	430	50.0	68.0	175	456		
1995	59.0	534	25.0	54.0	285	888		
1996	81.0	439	59.0	75.0	245	312		
1997	89.0	569	29.0	42.0	210			
1998	46.5	374	19.0	19.0	820			
1999	31.0	261	18.0	19.0	1,006	1,577		
2000	23.3	227	9.3	19.8	694	3,715		
2001	23.0	173	4.0	6.0	883	2,688		
2002	21.0	169	9.0	12.0	898	2,845		
2003	28.8	275	10.0	10.0	660	1,116		
2004	43.0	431	11.0	11.0	778	524		
2005	72.0	803	13.0	13.0	780	396		
2006	68.7	775	15.0	15.0	720	312		
2007	67.5	767	17.0	17.0	224	336		
2008	55.0	566	13.0	13.0	730	396		
2009	50.0	493	27.0	28.0	771	342	8	87
Averages								
85-08	45	393	16	24	598	1,257		
99-08	43	445	12	14	737	1,391		

Appendix B. 25. Counts of adult sockeye salmon migrating through Tahltan Lake weir, 1959–2009.

	Weir	Date of Arrival			Weir	Total	Total		Samples	Otolith	Spawners		
Year	Installed	First	50%	90%	Pulled	Count	escapement	Broodstock	or ESSR	Samples	Total	Enhanced	Wild
1959	30-Jun	2-Aug	12-Aug	16-Aug		4,311	4,311						
1960	15-Jul	2-Aug	24-Aug	27-Aug		6,387	6,387						
1961	20-Jul	9-Aug	11-Aug	15-Aug		16,619	16,619						
1962	1-Aug	2-Aug	5-Aug	8-Aug		14,508	14,508						
1963	3-Aug					1,780	1,780						
1964	23-Jul	26-Jul	14-Aug	25-Aug		18,353	18,353						
1965	19-Jul	18-Jul	2-Sep	7-Sep		1,471	1,471						
1966	12-Jul	3-Aug	13-Aug	21-Aug		21,580	21,580						
1967	11-Jul	14-Jul	21-Jul	28-Jul		38,801	38,801						
1968	11-Jul	21-Jul	25-Jul	8-Aug		19,726	19,726						
1969	7-Jul	11-Jul	18-Jul	31-Jul		11,805	11,805						
1970	5-Jul	25-Jul	1-Aug	11-Aug		8,419	8,419						
1971	12-Jul	19-Jul	28-Jul	12-Aug		18,523	18,523						
1972	13-Jul	13-Jul	19-Jul	31-Aug	21-Aug	52,545	52,545						
1973	10-Jul	24-Jul	30-Jul	7-Aug	1-Sep	2,877	2,877						
1974	3-Jul	28-Jul	3-Aug	17-Aug	13-Sep	8,101	8,101						
1975	10-Jul	25-Jul	8-Aug	17-Aug	28-Aug	8,159	8,159						
1976	16-Jul	29-Jul	1-Aug	6-Aug	24-Aug	24,111	24,111						
1977	6-Jul	11-Jul	16-Jul	10-Aug	25-Aug	42,960	42,960						
1978	10-Jul	10-Jul	20-Jul	29-Jul	26-Aug	22,788	22,788						
1979	9-Jul	23-Jul	1-Aug	11-Aug	31-Aug	10,211	10,211						
1980	4-Jul	15-Jul	22-Jul	12-Aug	3-Sep	11,018	11,018						
1981	30-Jun	16-Jul	26-Jul	3-Aug	8-Sep	50,790	50,790						
1982	2-Jul	10-Jul	19-Jul	29-Jul	4-Sep	28,257	28,257						
1983	27-Jun	5-Jul	22-Jul	5-Aug	7-Sep	21,256	21,256						
1984	20-Jun	19-Jul	24-Jul	3-Aug	29-Aug	32,777	32,777						
1985	28-Jun	18-Jul	31-Jul	6-Aug	5-Sep	67,326	67,326						
1986	10-Jul	26-Jul	4-Aug	11-Aug	4-Sep	20,280	20,280						
1987	14-Jul	21-Jul	4-Aug	13-Aug	27-Aug	6,958	6,958						
1988	16-Jul	16-Jul	6-Aug	14-Aug	29-Aug	2,536	2,536						
1989	7-Jul	9-Jul	1-Aug	14-Aug	4-Sep	8,316	8,316	2,210			6,106		
1990	6-Jul	15-Jul	26-Jul	3-Aug	28-Aug	14,927	14,927	3,302			11,625		
1991	30-Jun	17-Jul	25-Jul	7-Aug	5-Sep	50,135	50,135	3,552			46,583		
1992	9-Jul	18-Jul	25-Jul	3-Aug	2-Sep	59,907	59,907	3,694			56,213		
1993	7-Jul	10-Jul	28-Jul	10-Aug	11-Sep	53,362	51,610	4,506	1,752		47,104	1,030	46,074
1994	7-Jul	14-Jul	30-Jul	9-Aug	7-Sep	46,363	39,511	3,378	6,852		36,133	6,172	29,961
1995	8-Jul	9-Jul	24-Jul	12-Aug	16-Sep	42,317	31,577	4,902	10,740		26,675	10,084	16,591
1996	6-Jul	14-Jul	22-Jul	04-Aug	10-Sep	52,500	38,161	4,402	14,339		33,759	3,936	29,823
1997	9-Jul	15-Jul	25-Jul	26-Aug	26-Sep	12,483	12,105	2,294		378	9,811	1,982	7,829
1998	9-Jul	11-Jul	25-Jul	26-Aug	17-Sep	12,658	12,268	3,099		390	9,169	616	8,553
1999	10-Jul	19-Jul	31-Jul	13-Aug	15-Sep	10,748	10,319	2,870		429	7,449	497	6,952
2000	9-Jul	21-Jul	25-Jul	03-Aug	4-Sep	6,076	5,670	1,717		406	3,953	801	3,152
2001	08-Jul	19-Jul	31-Jul	09-Aug	14-Sep	14,811	14,761	2,386		50	12,375	4,900	7,475
2002	07-Jul	12-Jul	25-Jul	08-Aug	14-Sep	17,740	17,340	3,051		400	11,169	3,799	7,370
2003	07-Jul	11-Jul	29-Jul	08-Aug	18-Sep	53,933	53,533	3,946		400	49,587	21,694	27,893
2004	07-Jul	12-Jul	25-Jul	10-Aug	15-Sep	63,372	62,952	4,243		420	58,709	29,994	28,715
2005	07-Jul	11-Jul	04-Aug	25-Aug	15-Sep	43,446	43,046	3,424		400	39,622	16,420	23,202
2006	09-Jul	12-Jul	27-Jul	20-Aug	13-Sep	53,855	53,455	3,403		400	50,052	24,126	25,926
2007	09-Jul	20-Jul	08-Aug	19-Aug	15-Sep	21,074	20,874	2,839		200	18,035	7,673	10,362
2008	13-Jul	21-Jul	30-Jul	10-Aug	18-Sep	10,516	10,416	2,364		100	8,052	4,143	3,909
2009	09-Jul	13-Jul	18-Jul	04-Aug	14-Sep	30,673	30,324	3,011		349	27,313	4,041	23,272
Averages													
59-08	09-Jul	18-Jul	30-Jul	11-Aug	06-Sep	24,875	24,122						
99-08	08-Jul	15-Jul	29-Jul	12-Aug	14-Sep	29,557	29,237	3,024		321	25,900	14,496	11,405

Appendix B. 26. Estimates of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 1984–2009.

	Weir	Date of Arrival			Total	Total	Date and	Smolt	
Year	Installed	First	50%	90%	Count	Estimate	Expansion	Natural	Hatchery
1984	10-May	11-May	23-May	06-Jun		218,702			
1985	25-Apr	23-May	31-May	28-May		613,531			
1986	08-May	10-May	31-May	07-Jun		244,330			
1987[a]	07-May	15-May	23-May	24-May		810,432			
1988	01-May	08-May	20-May	06-Jun		1,170,136			
1989	05-May	08-May	22-May	06-Jun		580,574			
1990[b]		15-May	29-May	05-Jun	595,147	610,407	6/14 97.5%		
1991[c]	05-May	14-May	21-May	30-May	1,439,676	1,487,265	6/13 96.8%	1,220,397	266,868
1992[d]	07-May	13-May	21-May	27-May	1,516,150	1,555,026	6/14 97.5%	750,702	804,324
1993	07-May	11-May	17-May	22-May		3,255,045		2,855,562	399,483
1994	08-May	08-May	16-May	12-Jun		915,119		620,809	294,310
1995	05-May	06-May	13-May	11-Jun		822,284		767,027	55,257
1996	11-May	11-May	20-May	25-May		1,559,236		1,408,020	151,216
1997	07-May	11-May	23-May	30-May		518,202		348,685	169,517
1998	07-May	08-May	25-May	05-Jun		540,866		326,420	214,446
1999	06-May	10-May	09-Jun	15-Jun		762,033		468,488	293,545
2000	07-May	09-May	22-May	17-Jun		619,274		355,618	263,656
2001	06-May	07-May	24-May	18-Jun		1,495,642		841,268	654,374
2002	06-May	14-May	27-May	12-Jun		1,873,598		1,042,435	831,163
2003	06-May	11-May	29-May	06-Jun		1,960,480		979,442	981,038
2004	06-May	10-May	21-May	25-May		2,116,701		825,513	1,291,188
2005	06-May	07-May	17-May	25-May		1,843,804		943,929	899,875
2006	06-May	10-May	25-May	02-Jun		2,195,266		1,773,062	422,204
2007	06-May	16-May	21-May	28-May		1,055,114		644,987	410,127
2008	06-May	12-May	23-May	02-Jun		1,402,995		870,295	532,700
2009	06-May	14-May	26-May	01-Jun		746,045		484,929	261,116
Averages									
84-08	06-May	11-May	23-May	03-Jun		1,209,042		946,814	496,405
99-08	06-May	10-May	24-May	05-Jun		1,532,491		874,504	657,987

[a] Estimate includes approximately 30,000 mortalities from overcrowding on May 22, 1987.

[b] Estimate of 595,147 on June 14 expanded by average % of outmigration by date (97.5%) from historical data.

[c] Estimate of 1,439,673 on June 13 expanded by average % of outmigration by date (96.8%) from historical data.

[d] Estimate of 1,516,150 on June 14 expanded by average % of outmigration by date (97.5%) from historical data.

Appendix B. 27. Weir counts of Chinook salmon at Little Tahltan River, 1985–2009.

Year	Weir Installed	Date of Arrival First	Date of Arrival 50%	Date of Arrival 90%	Total Count	Broodstock and Other	Natural Spawners
Large Chinook							
1985	03-Jul	04-Jul	30-Jul	06-Aug	3,114		3,114
1986	28-Jun	29-Jun	21-Jul	05-Aug	2,891		2,891
1987	28-Jun	04-Jul	24-Jul	02-Aug	4,783		4,783
1988	26-Jun	27-Jun	18-Jul	03-Aug	7,292		7,292
1989	25-Jun	26-Jun	23-Jul	02-Aug	4,715		4,715
1990	22-Jun	29-Jun	23-Jul	04-Aug	4,392		4,392
1991	23-Jun	25-Jun	20-Jul	03-Aug	4,506		4,506
1992	24-Jun	04-Jul	21-Jul	30-Jul	6,627	-12	6,615
1993	20-Jun	21-Jun	16-Jul	28-Jul	11,449	-12	11,437
1994	18-Jun	28-Jun	22-Jul	02-Aug	6,387	-14	6,373
1995	17-Jun	20-Jun	17-Jul	04-Aug	3,072	0	3,072
1996	17-Jun	26-Jun	16-Jul	30-Jul	4,821	0	4,821
1997	14-Jun	22-Jun	16-Jul	29-Jul	5,557	-10	5,547
1998	13-Jun	19-Jun	14-Jul	29-Jul	4,879	-6	4,873
1999	18-Jun	27-Jun	19-Jul	1-Aug	4,738	-5	4,733
2000	19-Jun	23-Jun	21-Jul	5-Aug	6,640	-9	6,631
2001	20-Jun	23-Jun	18-Jul	2-Aug	9,738	-8	9,730
2002	20-Jun	23-Jun	18-Jul	27-Jul	7,490	-14	7,476
2003	20-Jun	20-Jun	19-Jul	6-Aug	6,492	0	6,492
2004	18-Jun	19-Jun	20-Jul	31-Jul	16,381	0	16,381
2005	19-Jun	21-Jun	22-Jul	4-Aug	7,387	0	7,387
2006	20-Jun	26-Jun	21-Jul	29-Jul	3,860	0	3,860
2007	4-Jul	10-Jul	29-Jul	4-Aug	562	0	562
2008	19-Jun	6-Jul	26-Jul	4-Aug	2,663	0	2,663
2009	19-Jun	3-Jul	19-Jul	4-Aug	2,245	0	2,245
Averages							
85-08	21-Jun	26-Jun	20-Jul	01-Aug	5,852		5,848
98-08	20-Jun	25-Jun	21-Jul	02-Aug	6,595	-4	6,592
non-largeChinook[a]							
1985	03-Jul	04-Jul	31-Jul	10-Aug	316		3,430
1986	28-Jun	03-Jul	25-Jul	06-Aug	572		3,463
1987	28-Jun	03-Jul	26-Jul	06-Aug	365		5,148
1988	26-Jun	27-Jun	17-Jul	02-Aug	327		7,619
1989	25-Jun	26-Jun	23-Jul	02-Aug	199		4,914
1990	22-Jun	05-Jul	22-Jul	30-Jul	417		4,809
1991	23-Jun	03-Jul	24-Jul	07-Aug	313		4,819
1992	24-Jun	12-Jul	22-Jul	30-Jul	131		6,758
1993	20-Jun	30-Jun	14-Jul	01-Aug	60		11,509
1994	18-Jun	02-Jul	22-Jul	05-Aug	121		6,508
1995	17-Jun	22-Jun	28-Jul	10-Aug	135		3,207
1996	17-Jun	12-Jul	25-Jul	05-Aug	22		4,843
1997	14-Jun	26-Jun	21-Jul	1-Aug	54		5,611
1998	13-Jun	26-Jun	20-Jul	7-Aug	37		4,916
1999	18-Jun	1-Jul	23-Jul	6-Aug	202		4,940
2000	19-Jun	23-Jun	20-Jul	5-Aug	108		6,748
2001	20-Jun	23-Jun	27-Jul	3-Aug	269		10,007
2002	20-Jun	26-Jun	21-Jul	7-Aug	618		8,108
2003	20-Jun	30-Jun	21-Jul	5-Aug	334		6,826
2004	18-Jun	21-Jun	19-Jul	31-Jul	250		16,631
2005	19-Jun	29-Jun	23-Jul	4-Aug	231		7,618
2006	20-Jun	7-Jul	23-Jul	5-Aug	93		3,953
2007	04-Jul	15-Jul	29-Jul	1-Aug	12		574
2008	19-Jun	14-Jul	25-Jul	29-Jul	139		2,802
2009	19-Jun	9-Jul	19-Jul	4-Aug	99		2,344
Averages							
85-08	21-Jun	01-Jul	22-Jul	03-Aug	222		6,073
98-08	20-Jun	30-Jun	23-Jul	03-Aug	226		6,821

Appendix C. 1. Chinook salmon harvest in the commercial drift gillnet fishery, 2009.

	D111		
Week	Total	nonlarge	large
20	613	77	536
21	290	37	253
22	1,627	205	1,422
23	1,909	206	1,703
24	858	69	789
25	0		
26	685	259	426
27	417	156	261
28	160	46	114
29	151	30	121
30	44	11	33
31	23	1	22
32	15	9	6
33	0	0	0
34	0	0	0
35	1	0	1
36	3	0	3
37	0	0	0
38	2	0	2
39	0	0	0
40-42	2	0	2
Total	6,800	1,106	5,694

Appendix C. 2. Chinook salmon mark-recapture estimates of above border run and harvest in the Canadian fisheries in the Taku River, 2009.

	Above	Commercial		Test fishery		Aboriginal			Total large	Above Border
Week	Border Run	Large	non-large	Large	non-large	Large	non-large	Rec	Harvest	Escapement
18		86	3	0	0				86	
19	1,109	589	29	0	0				589	
20	7,685	1781	107	0	0				1,781	
21	13,672	1452	178	0	0				1,452	
22	22,744	657	103	0	0				657	
23	22,828	789	131	0	0				789	
24	23,250	243	48	0	0				243	
25	24,511	364	55	0	0				364	
26	23,902	474	305	0	0				474	
27	24,396	209	114	0	0				209	
28	24,627	68	35	0	0				68	
29	24,150	44	23	0	0				44	
30	23,587	2	5	0	0				2	
31		0	1	0	0				0	
32		1	0	0	0				1	
Postseason estimate										
	30,934	6,759	1,137	0	0	172		105	7,036	22,761

Appendix C. 3. Weekly sockeye salmon harvest of Alaskan D111 traditional and terminal common property commercial drift gillnet fishery, 2009.

		Traditional StatArea specific harvests				Terminal
Week	D11 Total	111-32	111-31/90	111-20	111-34	111-(33-35)
20		0				
21	2	2				
22	2	2				
23	12	12				
24	50	50				
25						
26	4,045	4,032	13			
27	3,704	3,437	267			
28	6,704	5,398	1,306			
29	13,830	8,451	5,379			
30	11,242	7,284	3,958			
31	11,316	8,893	2,423			
32	6,398	5,076	1,322			
33	2,924	1,635	1,289			
34	840	701	139			
35	456	428	28			
36	415	382	33			
37	90	88	2			
38	32	32	0			
39	8	8				
40-42	0	0				
Total	62,070	45,911	16,159	0	0	0

Appendix C. 4. Estimates of wild and enhanced sockeye salmon stock harvested in the Alaskan District 111 traditional commercial drift gillnet fishery by week, 2009.

	Taku harvest proportions														
				Little Trapper		Tatsamenie		Total	Wild			U.S.	Stikine	Total	Total
Week	Kuthai	King Salmon	Mainstem	Wild	Enhanced	Wild	Enhanced	Taku	Crescent	Speel	Snett.	Enhanced	Enhanced	nhanced	wild
21-24	0.307	0.000	0.479	0.000		0.116	0.000	0.902	0.000	0.098	0.098	0.001	0.000	0.001	0.999
26	0.307	0.000	0.479	0.000		0.116	0.000	0.902	0.000	0.098	0.098	0.001	0.000	0.001	0.999
27	0.069	0.000	0.460	0.054		0.132	0.000	0.715	0.000	0.231	0.231	0.033	0.021	0.053	0.947
28	0.017	0.000	0.474	0.065		0.127	0.002	0.685	0.042	0.214	0.257	0.057	0.002	0.060	0.940
29	0.000	0.000	0.290	0.149		0.112	0.005	0.557	0.077	0.056	0.132	0.307	0.003	0.316	0.684
30	0.000	0.000	0.424	0.018		0.100	0.008	0.550	0.000	0.108	0.108	0.342	0.000	0.350	0.650
31	0.000	0.000	0.295	0.143		0.090	0.002	0.531	0.127	0.030	0.157	0.312	0.000	0.314	0.686
32	0.000	0.000	0.202	0.101		0.113	0.004	0.420	0.036	0.041	0.077	0.500	0.002	0.507	0.493
33	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
34	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
35	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
36	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
37	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
38	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
39	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
40	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
41	0.000	0.000	0.215	0.050		0.118	0.003	0.385	0.035	0.044	0.079	0.536	0.000	0.539	0.461
Total	0.026	0.000	0.343	0.087	0.000	0.109	0.004	0.570	0.051	0.088	0.140	0.288	0.002	0.294	0.706
21-24	20	0	32	0		8	0	60	0	6	6	0	0	0	66
26	1,243	0	1,938	0		467	0	3,648	0	395	395	2	0	2	4,043
27	257	0	1,705	199		488	0	2,649	0	857	857	121	76	197	3,507
28	116	0	3,178	435		851	10	4,590	284	1,436	1,720	384	10	405	6,299
29	0	0	4,016	2,067		1,548	71	7,702	1,062	771	1,832	4,248	47	4,367	9,463
30	0	0	4,762	204		1,125	94	6,184	0	1,212	1,212	3,845	0	3,939	7,303
31	0	0	3,333	1,624		1,023	24	6,004	1,438	341	1,778	3,534	0	3,558	7,758
32	0	0	1,290	647		726	27	2,689	231	264	494	3,201	13	3,241	3,157
33	0	0	627	146		344	9	1,126	103	129	232	1,566	0	1,575	1,349
34	0	0	180	42		99	2	323	30	37	67	450	0	452	388
35	0	0	98	23		54	1	176	16	20	36	244	0	246	210
36	0	0	89	21		49	1	160	15	18	33	222	0	224	191
37	0	0	19	4		11	0	35	3	4	7	48	0	48	42
38	0	0	7	2		4	0	12	1	1	3	17	0	17	15
39	0	0	2	0		1	0	3	0	0	1	4	0	4	4
40	0	0	0	0		0	0	0	0	0	0	0	0	0	0
41	0	0	0	0		0	0	0	0	0	0	0	0	0	0
Total	1,636	0	21,275	5,414		6,796	240	35,361	3,182	5,492	8,674	17,888	148	18,275	43,795

Appendix C. 5. Weekly sockeye salmon mark-recapture estimates of above border run and harvest in the Canadian fisheries in the Taku River, 2009.

Week	Above Border Run	Commercial	Test	Aboriginal	Above Border Escapement
22		0			
23		0			
24		7			
25		12			
26		1,512			
27	10,882	1,776			
28	26,798	1,031			
29	47,323	2,094			
30	53,650	1,161			
31	65,030	697			
32	76,180	1,548			
33	78,965	489			
34	81,397	435			
35	82,449	100	81		
36	82,767	80	73		
37	82,944	38	19		
38	83,028		1		
39	83,064		0		
40	82,116		0		
41			0		
Total	83,028	10,980	174	106	71,768

Appendix C. 6. Estimates of wild and enhanced sockeye salmon stock harvested in the Canadian commercial fishery in the Taku River by week, 2009.

Taku wild stock composition estimates are historical averages.

Enhanced estimates based on harvest expanations of thermally marked fish. Does not inlcude Port Snettisham harvests.

				Little Trapper		Tatsamenie		Stikine	US	Taku
Week	Kuthai	King Salmon	Mainstem	Wild	Enhanced	Wild	Enhanced	Enhanced	Enhanced	Wild
22-24	0.675	0.000	0.192	0.127		0.006	0.000	0.000		1.000
25	0.675	0.000	0.192	0.127		0.006	0.000	0.000		1.000
26	0.675	0.000	0.192	0.127		0.006	0.000	0.000		1.000
27	0.159	0.000	0.187	0.580		0.073	0.000	0.001		0.999
28	0.141	0.000	0.096	0.664		0.097	0.000	0.001		0.999
29	0.115	0.000	0.215	0.536		0.113	0.011	0.011		0.978
30	0.000	0.000	0.292	0.424		0.273	0.011	0.000		0.989
31	0.000	0.000	0.478	0.383		0.107	0.032	0.000		0.968
32	0.000	0.000	0.362	0.346		0.292	0.000	0.000		1.000
33	0.000	0.000	0.319	0.447		0.235	0.000	0.000		1.000
34	0.000	0.000	0.722	0.009		0.234	0.035	0.000		0.965
35	0.000	0.000	0.722	0.009		0.234	0.035	0.000		0.965
36	0.000	0.000	0.722	0.009		0.234	0.035	0.000		0.965
37	0.000	0.000	0.722	0.009		0.234	0.035	0.000		0.965
38	0.000	0.000	0.722	0.009		0.234	0.035	0.000		0.965
Total	0.155	0.000	0.276	0.414	0.000	0.145	0.007	0.002	0.000	0.991
22-24	5	0	1	1	0	0	0	0	0	7
25	8	0	2	2	0	0	0	0	0	12
26	1,021	0	290	191	0	10	0	0	0	1,512
27	283	0	332	1,031	0	130	0	1	0	1,775
28	145	0	99	685	0	100	0	1	0	1,030
29	241	0	449	1,121	0	236	23	23	0	2,049
30	0	0	339	492	0	317	12	0	0	1,149
31	0	0	333	267	0	75	22	0	0	675
32	0	0	560	535	0	453	0	0	0	1,548
33	0	0	156	219	0	115	0	0	0	489
34	0	0	314	4	0	102	15	0	0	420
35	0	0	72	1	0	23	3	0	0	97
36	0	0	58	1	0	19	3	0	0	77
37	0	0	27	0	0	9	1	0	0	37
38	0	0	0	0	0	0	0	0	0	0
Total	1,703	0	3,035	4,549	0	1,588	80	25	0	10,876

Appendix C. 7. Weekly coho salmon harvest in the Alaskan District 111 and StatArea 111-32 (Taku Inlet), commercial drift gillnet fishery, 2009

	D111			111-32
Week	Total	Hatchery	Wild	
25				
26	16	0	16	16
27	118	0	118	106
28	316	0	316	212
29	2,101	0	2,101	532
30	1,945	0	1,945	1,114
31	946	0	946	801
32	974	0	974	877
33	716	0	716	589
34	959	0	959	906
35	4,297	33	4,264	3,924
36	12,522	0	12,522	11,652
37	4,809	0	4,809	4,662
38	3,786	0	3,786	3,640
39	1,929	0	1,929	1,929
40-42	1,181	0	1,181	1,181
Total	36,615	33	36,582	32,141

Appendix C. 8. Weekly coho salmon mark-recapture estimates of above border run and harvest in the Canadian fisheries in the Taku River, 2009.

	Above border	Harvest				Above border
Week	Run	Commercial	Aboriginal	Rec	Test	Escapement
18						
19						
20						
21						
22						
23						
24						
25						
26						
27		8				
28		29				
29		214				
30		398				
31		365				
32		787				
33		578				
34		1,244				
35		563			491	
36		966			672	
37		455			600	
38		33			672	
39					459	
40		6			668	
41	113,716	3			401	
Before SW34		2,379			3,963	
SW34 to end		3,270				
Postseason Estima	113,716	5,649	154	0	3,963	103,950

Appendix C. 9. Weekly effort in the Alaskan District 111 and StatArea 111-32 (Taku Inlet), commercial drift gillnet fishery, 2009.

		D111			D111-32		
Week	Start Date	Boats	Days Open	Boat Days	Boats	Days Open	Boat Days
20	10-May	45	1	45	45	1	45
21	17-May	43	1	43	40	1	40
22	24-May	55	2	110	55	2	110
23	31-May	64	2	128	64	2	128
24	7-Jun	64	1	64	63	1	63
25	14-Jun						
26	21-Jun	59	3.0	177	59	3	177
27	28-Jun	56	3.0	168	55	3	165
28	5-Jul	100	3.0	300	96	2	192
29	12-Jul	158	3.0	474	129	2	258
30	19-Jul	179	3.0	537	110	2	220
31	26-Jul	89	3.0	267	75	2	150
32	2-Aug	79	3.0	237	68	2	136
33	9-Aug	59	2.0	118	44	2	88
34	16-Aug	17	2.0	34	15	2	30
35	23-Aug	46	3.0	138	44	3	132
36	30-Aug	54	3.0	162	54	3	162
37	6-Sep	55	4.0	220	53	4	212
38	13-Sep	28	4.0	112	28	4	112
39	20-Sep	16	4.0	64	16	4	64
40	27-Sep	9	4.0	36	9	4	36
41	4-Oct	1	4.0	4	1	4	4
42	11-Oct	0	4.0	0	0	4	0
Total			62.0	3,438		57.0	2,524

Appendix C. 10. Weekly effort in the Canadian commercial and assessment fisheries in the Taku River, 2009.

		Commercial			Test		
Week	Start Date	Average Permits	Days Fished	Permit Days	Average Permits	Days Fished	Permit Days
18	26-Apr	2.25	4.00	9.00			
19	3-May	3.00	7.00	21.00			
20	10-May	4.67	6.00	28.02			
21	17-May	5.83	6.00	34.98			
22	24-May	4.71	7.00	32.97			
23	31-May	6.75	4.00	27.00			
24	7-Jun	4.00	7.00	28.00			
25	14-Jun	9.50	2.00	19.00			
26	21-Jun	9.33	3.00	27.99			
27	28-Jun	9.67	3.00	29.01			
28	5-Jul	7.50	4.00	30.00			
29	12-Jul	7.20	5.00	36.00			
30	19-Jul	4.86	7.00	34.02			
31	26-Jul	6.00	2.00	12.00			
32	2-Aug	8.00	2.00	16.00			
33	9-Aug	7.00	2.00	14.00			
34	16-Aug	4.33	6.00	25.98			
35	23-Aug	1.67	6.00	10.02		7	11.0
36	30-Aug	1.86	7.00	13.02		7	11.0
37	6-Sep	1.60	5.00	8.00		7	13.0
38	13-Sep	1.00	1.00	1.00		4	10.0
39	20-Sep					7	19.0
40	27-Sep	1.00	1.00	1.00		5	11.0
41	4-Oct	1.00	1.00	1.00		5	13.0
Total			98	459			88

Appendix C. 11. Daily counts of adult sockeye salmon passing through Tatsamenie weir, 2009.

	Tatsamenie			
		Cumulative		
Date	Count	Count	Percent	
6-Aug				
7-Aug	0	0	0.0	
8-Aug	0	0	0.0	
9-Aug	0	0	0.0	
10-Aug	0	0	0.0	
11-Aug	0	0	0.0	
12-Aug	0	0	0.0	
13-Aug	0	0	0.0	
14-Aug	0	0	0.0	
15-Aug	0	0	0.0	
16-Aug	0	0	0.0	
17-Aug	6	6	0.3	
18-Aug	23	29	1.4	
19-Aug	11	40	2.0	
20-Aug	56	96	4.7	
21-Aug	204	300	14.8	
22-Aug	41	341	16.8	
23-Aug	5	346	17.0	
24-Aug	7	353	17.4	
25-Aug	10	363	17.9	
26-Aug	16	379	18.7	
27-Aug	12	391	19.2	
28-Aug	28	419	20.6	
29-Aug	68	487	24.0	
30-Aug	287	774	38.1	
31-Aug	112	886	43.6	
1-Sep	124	1,010	49.7	
2-Sep	51	1,061	52.2	
3-Sep	66	1,127	55.5	
4-Sep	32	1,159	57.0	
5-Sep	78	1,237	60.9	
6-Sep	8	1,245	61.3	
7-Sep	9	1,254	61.7	
8-Sep	34	1,288	63.4	
9-Sep	37	1,325	65.2	
10-Sep	7	1,332	65.6	
11-Sep	87	1,419	69.8	
12-Sep	83	1,502	73.9	
13-Sep	48	1,550	76.3	
14-Sep	40	1,590	78.2	
15-Sep	39	1,629	80.2	
16-Sep	46	1,675	82.4	
17-Sep	18	1,693	83.3	
18-Sep	23	1,716	84.4	
19-Sep	44	1,760	86.6	
20-Sep	12	1,772	87.2	
21-Sep	15	1,787	87.9	
22-Sep	33	1,820	89.6	
23-Sep	45	1,865	91.8	
24-Sep	32	1,897	93.4	
25-Sep	44	1,941	95.5	
26-Sep	13	1,954	96.2	
27-Sep	1	1,955	96.2	
28-Sep	38	1,993	98.1	
29-Sep	32	2,025	99.7	
30-Sep	4	2,029	99.9	
1-Oct	1	2,030	99.9	
2-Oct	1	2,031	100.0	
3-Oct	1	2,032	100.0	
4-Oct	0	2,032	100.0	
5-Oct	0	2,032	100.0	
6-Oct	0	2,032	100.0	
7-Oct	0	2,032	100.0	
8-Oct	0	2,032	100.0	
9-Oct	0	2,032	100.0	
		Total	Wild	TMR
Holding below weir				
Escapement to lake		2,032	1,679	353
Outlet spawners		<15		
otolith samples		397	328	69
Broodstock a		-740	-611	-129
Spawners		1,292		

a Broodstock included 305 females and 273 males from which gametes were collected.
5 females and 8 male mortalities, and 90 females and 60 males which were held and released unspawned.
The spawning success of the released fish is not known.

Appendix C. 12. Daily counts of adult sockeye salmon passing through Little Trapper Lake weir, 2009.

		Cumulative	
Date	Count[a]	Count	Percent
21-Jul	0	0	0.0
22-Jul	0	0	0.0
23-Jul	0	0	0.0
24-Jul	0	0	0.0
25-Jul	0	0	0.0
26-Jul	0	0	0.0
27-Jul	0	0	0.0
28-Jul	0	0	0.0
29-Jul	0	0	0.0
30-Jul	13	13	0.2
31-Jul	36	49	0.9
1-Aug	108	157	2.8
2-Aug	76	233	4.2
3-Aug	42	275	5.0
4-Aug	41	316	5.7
5-Aug	155	471	8.5
6-Aug	194	665	12.0
7-Aug	92	757	13.6
8-Aug	343	1,100	19.8
9-Aug	397	1,497	27.0
10-Aug	471	1,968	35.4
11-Aug	416	2,384	42.9
12-Aug	649	3,033	54.6
13-Aug	519	3,552	64.0
14-Aug	442	3,994	71.9
15-Aug	259	4,253	76.6
16-Aug	335	4,588	82.6
17-Aug	231	4,819	86.8
18-Aug	137	4,956	89.3
19-Aug	60	5,016	90.3
20-Aug	78	5,094	91.8
21-Aug	41	5,135	92.5
22-Aug	48	5,183	93.4
23-Aug	47	5,230	94.2
24-Aug	53	5,283	95.2
25-Aug	22	5,305	95.6
26-Aug	26	5,331	96.0
27-Aug	10	5,341	96.2
28-Aug	51	5,392	97.1
29-Aug	5	5,397	97.2
30-Aug	33	5,430	97.8
31-Aug	13	5,443	98.0
1-Sep	48	5,491	98.9
2-Sep	34	5,525	99.5
3-Sep	10	5,535	99.7
4-Sep	6	5,541	99.8
5-Sep	4	5,545	99.9
6-Sep	0	5,545	99.9
7-Sep	4	5,549	99.9
8-Sep	3	5,552	100.0
9-Sep	0	5,552	100.0
10-Sep	0	5,552	100.0
11-Sep	----Weir Removed----		

	Total	Wild	TMR
Holding below weir			
Escapement to lake	5,552		
Outlet spawners			
otoltih samples	0		
Broodstock a	-109		
Spawners	5,443		

Appendix C. 13. Daily counts of adult sockeye salmon passing through the King Salmon Lake weir, 2009.

		Cumulative	
Date	Count	Count	Percent
4-Jul			
5-Jul	0	0	0.0
6-Jul	0	0	0.0
7-Jul	0	0	0.0
8-Jul	0	0	0.0
9-Jul	0	0	0.0
10-Jul	0	0	0.0
11-Jul	0	0	0.0
12-Jul	0	0	0.0
13-Jul	0	0	0.0
14-Jul	0	0	0.0
15-Jul	0	0	0.0
16-Jul	0	0	0.0
17-Jul	0	0	0.0
18-Jul	0	0	0.0
19-Jul	0	0	0.0
20-Jul	0	0	0.0
21-Jul	0	0	0.0
22-Jul	0	0	0.0
23-Jul	0	0	0.0
24-Jul	0	0	0.0
25-Jul	0	0	0.0
26-Jul	0	0	0.0
27-Jul	0	0	0.0
28-Jul	0	0	0.0
29-Jul	1	1	1.8
30-Jul	0	1	1.8
31-Jul	0	1	1.8
1-Aug	0	1	1.8
2-Aug	0	1	1.8
3-Aug	0	1	1.8
4-Aug	0	1	1.8
5-Aug	0	1	1.8
6-Aug	0	1	1.8
7-Aug	0	1	1.8
8-Aug	0	1	1.8
9-Aug	0	1	1.8
10-Aug	0	1	1.8
11-Aug	0	1	1.8
12-Aug	0	1	1.8
13-Aug	0	1	1.8
14-Aug	0	1	1.8
15-Aug	0	1	1.8
16-Aug	0	1	1.8
17-Aug	0	1	1.8
18-Aug	0	1	1.8
19-Aug	0	1	1.8
20-Aug	0	1	1.8
21-Aug	0	1	1.8
22-Aug	0	1	1.8
23-Aug	0	1	1.8
24-Aug	0	1	1.8
25-Aug	0	1	1.8
26-Aug	0	1	1.8
27-Aug	0	1	1.8
28-Aug	0	1	1.8
29-Aug	54	55	100.0
Total	55		

Appendix C. 14. Daily counts of adult sockeye salmon passing through the Kuthai Lake weir, 2009.

Date	Count	Cumulative	
		Count	Percent
3-Jul		0	0.0
4-Jul		0	0.0
5-Jul		0	0.0
6-Jul		0	0.0
7-Jul		0	0.0
8-Jul		0	0.0
9-Jul		0	0.0
10-Jul		0	0.0
11-Jul		0	0.0
12-Jul		0	0.0
13-Jul		0	0.0
14-Jul		0	0.0
15-Jul		0	0.0
16-Jul		0	0.0
17-Jul		0	0.0
18-Jul		0	0.0
19-Jul	408	408	28.3
20-Jul	47	455	31.6
21-Jul	68	523	36.3
22-Jul	0	523	36.3
23-Jul	152	675	46.8
24-Jul	18	693	48.1
25-Jul	77	770	53.4
26-Jul	86	856	59.4
27-Jul	64	920	63.8
28-Jul	0	920	63.8
29-Jul	51	971	67.3
30-Jul	0	971	67.3
31-Jul	0	971	67.3
1-Aug	0	971	67.3
2-Aug	0	971	67.3
3-Aug	0	971	67.3
4-Aug	34	1,005	69.7
5-Aug	45	1,050	72.8
6-Aug	48	1,098	76.1
7-Aug	11	1,109	76.9
8-Aug	4	1,113	77.2
9-Aug	0	1,113	77.2
10-Aug	0	1,113	77.2
11-Aug	0	1,113	77.2
12-Aug	8	1,121	77.7
13-Aug	0	1,121	77.7
14-Aug	0	1,121	77.7
15-Aug	17	1,138	78.9
16-Aug	0	1,138	78.9
17-Aug	0	1,138	78.9
18-Aug	0	1,138	78.9
19-Aug	0	1,138	78.9
20-Aug	0	1,138	78.9
21-Aug	19	1,157	80.2
22-Aug	108	1,265	87.7
23-Aug	57	1,322	91.7
24-Aug	2	1,324	91.8
25-Aug	2	1,326	92.0
26-Aug	0	1,326	92.0
27-Aug	21	1,347	93.4
28-Aug	69	1,416	98.2
29-Aug	6	1,422	98.6
30-Aug	20	1,442	100.0
31-Aug	Weir removed		
Total count		1,442	
Harvest above weir		0	
Escapement		1,442	

Appendix C. 15. Daily counts of large Chinook salmon carcasses at the Nakina River weir, 2009.

	Count (all sizes)				Cumulative Count		Size (sex combined)		
Date	Female	Male	Unknown	Combined	Count	Percent	Large	nonlarge	unknown
4-Aug	1			1	1	0.2	1	0	
7-Aug		1		1	2	0.3	1	0	
8-Aug	2	4		6	8	1.2	2	2	2
9-Aug	1			1	9	1.4	1	0	
10-Aug	3	10		13	22	3.3	4	7	2
11-Aug	3	7		10	32	4.9	1	4	5
12-Aug	1	34		35	67	10.2	4	21	10
13-Aug	1	34	1	36	103	15.7	7	25	4
14-Aug	6	39		45	148	22.5	9	26	10
15-Aug	5	41		46	194	29.5	6	26	14
16-Aug	8	35		43	237	36.1	9	25	9
17-Aug	6	83		89	326	49.6	15	55	19
18-Aug	4	82		86	412	62.7	19	53	14
19-Aug	5	71		76	488	74.3	13	52	11
20-Aug	5	52	1	58	546	83.1	9	38	11
21-Aug	5	46		51	597	90.9	6	27	18
22-Aug	5	34		39	636	96.8	8	22	9
23-Aug	4	11		15	651	99.1	3	11	1
24-Aug	1	2		3	654	99.5	1	1	1

30-Aug		3		3	657	100.0	3	0	
Total	66	589	2	657			122	395	140

Appendix D. 1. All historic harvest and effort of salmon in the D11 gillnet fishery and the annual harvest of personal use coho salmon, 1960–2009.

These estimates include traditional and common property terminal harvest in D11.

Year	Chinook	Sockeye	Coho	Pink	Chum	Boat Days	Days open	Coho PU
1960	8,810	42,819	22,374	33,155	41,852		60	
1961	7,434	45,981	15,486	41,455	24,433		62	
1962	5,931	36,745	15,661	17,280	20,635		52	
1963	2,652	24,119	10,855	21,692	20,114		54	
1964	2,509	34,140	29,315	26,593	12,853		56	
1965	4,170	27,569	32,667	2,768	11,533		63	
1966	4,829	33,925	26,065	23,833	35,133		64	
1967	5,417	17,735	40,391	12,372	22,834		53	221
1968	4,904	19,501	39,103	67,365	21,890		60	196
1969	6,986	41,222	10,802	74,178	15,046	1,518	42	8
1970	3,357	50,862	44,569	196,237	110,621	2,688	53	0
1971	6,945	66,261	41,588	31,296	90,964	3,053	55	0
1972	10,949	80,911	49,609	144,237	148,432	3,103	51	0
1973	9,799	85,402	35,453	58,186	109,245	3,286	41	0
1974	2,908	38,726	38,667	57,820	86,692	2,315	30	0
1975	2,182	32,550	1,185	9,567	2,678	1,084	16	0
1976	1,757	62,174	41,664	14,977	81,972	1,914	25	4
1977	1,068	72,030	54,929	88,904	60,964	2,258	27	
1978	1,926	55,398	31,944	51,385	36,254	2,174	26	
1979	3,701	122,148	16,194	152,836	61,194	2,269	29	
1980	2,251	123,451	41,677	296,622	192,793	4,123	31	
1981	1,721	49,942	26,711	254,856	76,438	2,687	30	
1982	3,014	83,722	29,073	109,270	37,584	2,433	36	
1983	888	31,821	21,455	66,239	15,264	1,274	33	
1984	1,773	77,233	33,836	145,971	86,764	2,757	53	
1985	2,632	88,093	55,518	311,305	106,900	3,264	48	35
1986	2,584	73,061	30,512	16,568	58,792	2,129	33	
1987	2,076	75,212	35,219	363,439	121,660	2,514	35	
1988	1,777	38,901	44,818	157,732	140,038	2,135	32	
1989	1,811	74,019	51,812	180,639	36,979	2,333	41	57
1990	3,480	126,884	67,530	153,126	145,799	3,188	38	103
1991	3,214	109,471	126,576	74,170	160,422	4,145	57	86
1992	2,341	135,411	172,662	314,445	112,527	4,550	50	88
1993	7,159	171,427	65,539	29,216	167,902	3,827	43	25
1994	5,047	106,318	188,682	410,467	214,243	5,078	66	93
1995	4,660	104,064	83,609	41,513	350,033	4,034	49	97
1996	2,659	201,853	33,650	12,675	365,813	3,229	46	67
1997	2,805	143,009	32,364	51,483	176,913	2,107	33	27
1998	794	101,702	28,713	168,738	296,121	3,070	48	86
1999	1,961	93,368	17,309	59,368	429,405	2,841	59	44
2000	2,019	290,165	7,828	58,699	669,998	2,919	40	31
2001	1,698	293,657	22,646	123,026	241,370	4,731	54	22
2002	1,850	240,439	40,464	78,624	231,936	4,095	62	68
2003	1,467	313,725	24,338	114,184	170,901	3,977	78	59
2004	2,345	428,745	59,868	154,775	131,856	3,342	63	120
2005	23,301	222,156	21,289	182,778	97,588	3,427	68	134
2006	11,261	313,982	60,145	192,140	383,000	3,517	89	134
2007	1,452	184,810	22,394	100,375	590,169	3,505	64	60
2008	2,193	116,693	37,349	90,162	774,095	3,116	49	91
2009	6,800	62,070	36,615	56,801	918,350	3,438	62	240
average								
60-08	4,091	110,277	42,492	110,995	155,074	3,000	48	63
99-08	4,955	249,774	31,363	115,413	372,032	3,547	63	76

Appendix D. 2. Annual harvest estimates of Taku River large Chinook salmon in the D11 fisheries, 2005–2009.

Sport and Gillnet estimates based on GSI.

Year	Gillnet	Sport	PU	Troll	Total large Taku
2005	16,490	2,476	32	21	19,019
2006	9,257	2,048	18	11	11,334
2007	303	1,034	22	0	1,359
2008	445	632	46	0	1,123
2009	4,609	673	25	2	5,309

Appendix D. 3. Annual Chinook Salmon harvest in the Canadian fisheries in the Taku River, 1979–2009.

	Commerical		Aboriginal		Test			Rec	Total
Year	Large	nonlarge	Large	nonlarge	Large	nonlarge	released large	Large	All Large
1979	97							300	397
1980	225		85					300	610
1981	159							300	459
1982	54							300	354
1983	156	400	9					300	465
1984	294	221	0					300	594
1985	326	24	4					300	630
1986	275	77	10					300	585
1987	127	106	0					300	427
1988	555	186	27		72			300	954
1989	895	139	6		31			300	1,232
1990	1,258	128	0		48			300	1,606
1991	1,177	432	0		0			300	1,477
1992	1,445	147	121		0			300	1,866
1993	1,619	171	25		0			300	1,944
1994	2,065	235	119		There was no Canadian coho test fishery			300	2,484
1995	1,577	298	70		There was no Canadian coho test fishery			105	1,752
1996	3,331	144	63		There was no Canadian coho test fishery			105	3,499
1997	2,731	84	103					105	2,939
1998	1,107	227	60		There was no Canadian coho test fishery			105	1,272
1999	908	257	50		577	2	181	105	1,640
2000	1,576	87	50		1,312	87	439	105	3,043
2001	1,458	118	125		1,175	229	871	105	2,863
2002	1,561	291	37		1,311	355	1,132	105	3,014
2003	1,894	547	277	237	1,403	397		105	3,679
2004	2,082	335	277	116	1,489	294		105	3,953
2005	7,399	821	212		0	0		105	7,716
2006	7,377	207	222		630	9		105	8,334
2007	874	426	167	16	1,396	302		105	2,542
2008	913	330	1		1,399	139		105	2,418
2009	6,759	1,137	172	0	0	0		105	7,036
Averages									
85-08	1,855	242	84					183	2,756
99-08	2,604	342	142		1,069	181		105	3,920

Appendix D. 4. Taku River large Chinook salmon run size, 1979–2009.

Run estimate does not include spawning escapements below the U.S./Canada border. US harvest estimates after 2004 are based on GSI (gillnet and sport fish) and CWT (troll) and harvest in the fisheries between SW 18-28.

	Above Border M-R				Above Border			
	Spawning		CI		Canadian	Run	U.S.	Terminal
Year	Escapement	Method	Lower	Upper	Harvest [a]	Estimate	Harvest	Run
1989	40,329	Mark-recapture	29,263	51,395	1,232	41,561		
1990	52,142	Mark-recapture	33,863	70,421	1,606	53,748		
1991	51,645	Aerial expansion	17,072	86,218	1,477	53,122		
1992	55,889	Aerial expansion	18,475	93,303	1,866	57,755		
1993	66,125	Aerial expansion	21,858	110,392	1,944	68,069		
1994	48,368	Aerial expansion	15,989	80,747	2,484	50,852		
1995	33,805	Medium expansion	23,887	43,723	1,752	35,557	6,263	41,820
1996	79,019	Mark-recapture	61,285	96,753	3,499	82,518	6,280	88,798
1997	114,938	Mark-recapture	79,878	149,998	2,939	117,877	8,325	126,202
1998	31,039	Aerial expansion	10,255	51,823	1,272	32,311	2,605	34,916
1999	16,786	Mark-recapture	10,571	23,001	1,640	18,426	4,019	22,445
2000	34,997	Mark-recapture	24,407	45,587	3,043	38,040	3,472	41,512
2001	46,644	Mark-recapture	33,383	59,905	2,863	49,507	3,883	53,390
2002	55,044	Mark-recapture	33,313	76,775	3,014	58,058	3,282	61,340
2003	36,435	Mark-recapture	23,293	49,577	3,679	40,114	2,768	42,882
2004	75,032	Mark-recapture	54,883	95,181	3,953	78,985	3,696	82,681
2005	38,599	Mark-recapture	28,980	48,219	7,716	46,315	19,019	65,334
2006	42,191	Mark-recapture	31,343	53,040	8,334	50,525	11,334	61,859
2007	14,749	Mark-recapture	8,326	21,172	2,542	17,291	1,359	18,650
2008	26,645	Mark-recapture	20,744	32,545	2,418	29,063	1,123	30,186
2009	22,761	Mark-recapture	17,134	28,388	7,036	29,797	5,309	35,106
Averages								
99-08	38,712				3,920	42,632	5,396	48,028

[a] In years when sample size data is available (1999-present in the commercial and test fisheries, and 2003-2004 in the Aboriginal fishery) it was used to determine the number of large fish in the Canadian harvest. In years when sample data is not available, the average % large in the commercial fishery from 1999-2004 (75%) was applied to all harvest except the recreational harvest which is assumed to be 100% large.

Appendix D. 5. Aerial survey index escapement counts of large (3-ocean and older) Taku River Chinook salmon, 1975–2009.

Year	Kowatua	Tatsatua	Dudidontu	Nakina	Nahlin	Tallied Index without Tseta	Tseta
1975			15	1,800	274	2,089	
1976	341	620	40	3,000	725	4,726	
1977	580	573	18	3,850	650	5,671	
1978	490	550		1,620	624	3,284	21
1979	430	750	9	2,110	857	4,156	
1980	450	905	158	4,500	1,531	7,544	
1981	560	839	74	5,110	2,945	9,528	258
1982	289	387	130	2,533	1,246	4,585	228
1983	171	236	117	968	391	1,883	179
1984 [ab]	279	616		1,887	951	3,733	176
1985	699	848	475	2,647	2,236	6,905	303
1986	548	886	413	3,868	1,612	7,327	193
1987	570	678	287	2,906	1,122	5,563	180
1988	1,010	1,272	243	4,500	1,535	8,560	66
1989	601	1,228	204	5,141	1,812	8,986	494
1990	614	1,068	820	7,917	1,658	12,077	172
1991	570	1,164	804	5,610	1,781	9,929	224
1992	782	1,624	768	5,750	1,821	10,745	313
1993	1,584	1,491	1,020	6,490	2,128	12,713	491
1994	410	1,106	573	4,792	2,418	9,299	614
1995	550	678	731	3,943	2,069	7,971	786
1996	1,620	2,011	1,810	7,720	5,415	18,576	1,201
1997	1,360	1,148	943	6,095	3,655	13,201	648
1998	473	675	807	2,720	1,294	5,969	360
1999	561	431	527	1,900	532	3,951	221
2000	702	953	482	2,907	728	5,772	160
2001	1,050	1,024	479	1,552	935	5,040	202
2002	945	1,145	834	4,066	1,099	8,089	192
2003	850	1,000	644	2,126	861	5,481	436
2004	828	1,396	1,036	4,091	1,787	9,138	906
2005	833	1,146	318	1,213	471	3,981	215
2006	1,180	908	395	1,900	955	5,338	199
2007	262	390	4	NA	277	933	199
2008	690	1,083	480	1,437	1,121	4,811	497
2009	408	633	272	1,698	1,033	4,044	145
Averages							
85-08	783	1,039	629	3,882	1,611	7,764	378
99-08	790	948	520	2,355	877	5,253	323

[a] Partial survey. Tseta 84

[b] Extrapolated results. Nahlin 84

[c] Stopped flying index area 4 on the Nakina after 2009.

Appendix D. 6. Annual Sockeye salmon harvest in the Alaskan District 111 fisheries, includes estimates of Taku wild and enhanced fish in the gillnet and personal use fisheries, 1967–2009.

Personal Use wild/enhanced estimates are based on the Canadian lower river commerical fisher

	D111 gillnet harvest				PU Taku harvest		
Year	All D111	D11 without snet for stock comp harvest	Wild Taku	nhancedTak	All Taku	Wild Taku	EnhancedTaku
1967	17,735	15,282			103		
1968	19,501	17,721			41		
1969	41,169	40,053			122		
1970	50,922	49,951			304		
1971	66,181	62,593			512		
1972	80,404	76,478			554		
1973	85,317	81,149			1,227		
1974	38,670	33,934			1,431		
1975	32,513	32,271			170		
1976	61,749	54,456			351		
1977	70,097	66,844					
1978	55,398	54,305					
1979	122,148	115,192					
1980	123,451	116,861					
1981	49,942	48,912					
1982	83,625	80,161					
1983	31,821	31,073					
1984	77,233	76,015					
1985	88,077	87,550			920		
1986	73,061	72,713					
1987	75,212	76,377					
1988	38,923	38,885					
1989	74,019	73,991			562		
1990	126,884	126,876			793		
1991	109,877	111,002			800		
1992	135,411	132,669			1,217		
1993	171,556	171,373			1,201		
1994	105,861	105,758			1,111		
1995	103,377	103,361	86,929	4,065	990	950	40
1996	199,014	198,303	181,776	4,762	1,189	1,168	21
1997	94,745	94,486	76,043	2,031	1,053	1,024	29
1998	69,677	68,462	47,824	806	1,202	1,165	37
1999	79,425	77,515	61,205	599	1,254	1,236	18
2000	168,272	166,248	128,567	1,561	1,134	1,116	18
2001	290,450	284,786	194,091	8,880	1,462	1,405	57
2002	178,488	176,042	114,461	651	1,289	1,287	2
2003	205,433	177,903	133,509	767	1,218	1,208	10
2004	241,254	177,830	75,186	676	1,150	1,135	15
2005	87,254	71,472	44,361	579	1,150	1,136	14
2006	134,781	99,622	62,814	2,210	804	773	31
2007	112,241	107,129	60,879	3,684	566	508	58
2008	116,693	116,693	63,002	11,680	1,010	903	107
2009	62,070	62,070	35,121	240	871	863	8
Averages							
99-08	161,429	145,524	93,807	3,129	1,104	1,071	33

Appendix D. 7. Stock proportions and harvest of sockeye salmon in the Alaska District 111 commercial drift gillnet fishery, 1983–2009.

Data based on analysis of scale patterns, otolith marks, and incidence of brain parasites. Does not include harvest inside Port Snettisham

		King		Little Trapper		Tatsamenie		Taku	Total	Snettisham Total Wild			U.S.	Stikine
Week	Kuthai	Salmon	Mainstem	Wild	Enhanced	Wild	Enhanced	Wild	Taku	Crescent	Speel	Snett.	Enhanced	Enhanced
1983								0.755	0.755			0.245		
1984								0.758	0.758			0.242		
1985								0.838	0.838			0.162		
1986	0.061		0.303	0.266		0.204		0.834	0.834	0.090	0.076	0.166		
1987	0.078		0.376	0.234		0.031		0.720	0.720	0.157	0.123	0.280		
1988	0.118		0.305	0.158		0.082		0.663	0.663	0.266	0.071	0.337		
1989[a]	0.077					0.156		0.849	0.849	0.051	0.100	0.152		
1990	0.036		0.336	0.197		0.286		0.855	0.855	0.112	0.033	0.145		
1991	0.039		0.373	0.297		0.232		0.941	0.941	0.059	0.000	0.059		
1992	0.048		0.445	0.220		0.191		0.904	0.904	0.036	0.060	0.096		
1993	0.062		0.308	0.328		0.123		0.822	0.822	0.069	0.109	0.178		
1994	0.110		0.361	0.356		0.091		0.917	0.917	0.036	0.022	0.058	0.025	
1995	0.046		0.428	0.214	0.010	0.153	0.029	0.841	0.880	0.018	0.075	0.093	0.026	
1996	0.069		0.499	0.117	0.010	0.232	0.014	0.917	0.941	0.013	0.032	0.045	0.014	
1997	0.067		0.282	0.170	0.011	0.286	0.011	0.805	0.826	0.027	0.026	0.053	0.120	
1998	0.087		0.209	0.158	0.008	0.245	0.004	0.699	0.710	0.026	0.007	0.033	0.257	
1999	0.176		0.235	0.259	0.003	0.119	0.005	0.790	0.797	0.049	0.023	0.072	0.131	
2000	0.139		0.211	0.273	0.002	0.151	0.008	0.773	0.783	0.004	0.054	0.058	0.160	
2001	0.076		0.268	0.130	0.000	0.207	0.031	0.682	0.713	0.014	0.032	0.046	0.241	
2002	0.098		0.173	0.254	0.000	0.126	0.004	0.650	0.654	0.014	0.032	0.047	0.299	
2003	0.087	0.016	0.398	0.225	0.000	0.033	0.004	0.750	0.755	0.009	0.047	0.064	0.181	
2004	0.064	0.043	0.233	0.041	0.000	0.042	0.004	0.423	0.427	0.011	0.040	0.052	0.522	
2005	0.021	0.024	0.456	0.080	0.000	0.040	0.008	0.621	0.629	0.048	0.097	0.145	0.226	
2006	0.019	0.025	0.361	0.067	0.000	0.159	0.022	0.631	0.653	0.015	0.044	0.060	0.288	
2007	0.066	0.000	0.355	0.058	0.000	0.089	0.034	0.568	0.603	0.083	0.023	0.106	0.291	
2008	0.092	0.011	0.267	0.016	0.000	0.154	0.100	0.540	0.640	0.034	0.048	0.082	0.278	
2009	0.026	0.000	0.343	0.087	0.000	0.109	0.004	0.566	0.570	0.051	0.088	0.140	0.288	0.002
Averages														
86-08	0.076		0.326	0.187	0.003	0.149	0.020	0.748	0.762	0.054	0.051	0.105	0.204	
99-08	0.084	0.020	0.296	0.140	0.000	0.112	0.022	0.643	0.665	0.028	0.044	0.073	0.262	
1983								23,460	23,460			7,613		
1984								57,619	57,619			18,396		
1985								73,367	73,367			14,183		
1986	4,468		21,999	19,348		14,829		60,644	60,644	6,579	5,490	12,069		
1987	5,984		28,724	17,867		2,388		54,963	54,963	11,997	9,417	21,414		
1988	4,594		11,854	6,147		3,191		25,785	25,785	10,355	2,745	13,100		
1989[a]	5,694					11,532		62,804	62,804	3,788	7,422	11,210		
1990	4,539		42,673	24,950		36,330		108,492	108,492	14,241	4,143	18,384		
1991	4,339		41,376	33,020		25,736		104,471	104,471	6,531	0	6,531		
1992	6,411		59,004	29,214		25,329		119,959	119,959	4,813	7,897	12,709		
1993	10,662		52,820	56,290		21,116		140,888	140,888	11,864	18,621	30,485		
1994	11,627		38,142	37,607		9,576		96,952	96,952	3,855	2,317	6,172	2,634	
1995	4,787		44,271	22,106	1,017	15,765	3,049	86,929	90,994	1,901	7,740	9,641	2,727	
1996	13,693		98,876	23,224	1,913	45,983	2,849	181,776	186,538	2,535	6,393	8,928	2,838	
1997	6,328		26,621	16,061	1,028	27,033	1,003	76,043	78,074	2,551	2,503	5,054	11,358	
1998	5,949		14,306	10,826	560	16,743	246	47,824	48,630	1,753	491	2,244	17,588	
1999	13,679		18,231	20,101	241	9,194	358	61,205	61,804	3,786	1,770	5,556	10,155	
2000	23,076		35,025	45,424	276	25,042	1,285	128,567	130,128	614	8,979	9,592	26,528	
2001	21,612		76,418	37,124	0	58,937	8,880	194,091	202,971	4,017	9,149	13,166	68,649	
2002	17,235		30,397	44,687	0	22,141	651	114,461	115,112	2,524	5,700	8,223	52,708	
2003	15,462	2,829	70,801	39,989	0	5,876	767	133,509	134,276	1,622	8,361	11,431	32,196	
2004	11,420	7,583	41,366	7,311	0	7,505	676	75,186	75,862	2,029	7,128	9,158	92,810	
2005	1,495	1,715	32,591	5,699	0	2,860	579	44,361	44,940	3,418	6,953	10,371	16,161	
2006	1,863	2,441	35,993	6,691	0	15,825	2,210	62,814	65,024	1,531	4,409	5,939	28,659	
2007	7,087	0	38,084	6,224	0	9,484	3,684	60,879	64,563	8,878	2,475	11,353	31,213	
2008	10,709	1,308	31,170	1,816	0	17,999	11,680	63,002	74,682	3,939	5,605	9,544	32,467	
2009	1,636	0	21,275	5,414	0	6,796	240	35,121	35,361	3,182	5,492	8,674	17,888	148
Average [a]														
86-08	9,248		40,488	22,484		18,714		91,548	93,415	5,005	5,900	10,968	28,579	
99-08	12,364	2,646	41,008	20,038	52	17,486	3,077	93,807	96,936	3,236	6,053	9,433	39,155	

[a] The Trapper and Mainstem groups were combined in the 1989 analysis.

Appendix D. 8. Proportion of wild Taku River sockeye salmon in the Alaskan District 111 commercial drift gillnet harvest by week, 1983–2009.

Data based on scale patterns and incidence of brain parasites. Does not include enhanced fish.

	Week										
Year	25	26	27	28	29	30	31	32	33	34	Total
1983		0.996	0.842	0.819	0.663	0.527	0.836	0.534	0.719	0.759	0.755
1984	0.970	0.956	0.843	0.670	0.588	0.712	0.728	0.809	0.726		0.758
1985	0.999	0.986	0.928	0.974	0.868	0.706	0.737	0.826	0.801		0.838
1986	0.938	0.953	0.873	0.880	0.852	0.777	0.851	0.757	0.893	0.739	0.834
1987		0.982	0.901	0.884	0.948	0.414	0.619	0.689	0.841	0.731	0.720
1988		0.964	0.886	0.889	0.510	0.643	0.677	0.528	0.478	0.346	0.663
1989	0.943	0.989	0.979	0.852	0.835	0.641	0.681	0.919	0.676		0.848
1990	0.874	0.935	0.904	0.773	0.782	0.863	0.943	0.939	0.878	0.862	0.855
1991	0.988	0.979	0.953	0.979	0.951	0.933	0.936	0.890	0.885	0.875	0.941
1992		0.978	0.985	0.956	0.916	0.943	0.893	0.858	0.766	0.766	0.904
1993		0.961	0.901	0.837	0.856	0.781	0.790	0.829	0.738	0.706	0.822
1994		1.000	0.981	0.973	0.967	0.870	0.835	0.938	0.804	0.901	0.917
1995	0.942	0.889	0.903	0.858	0.872	0.868	0.761	0.759	0.705	0.740	0.841
1996	1.000	0.998	0.909	0.974	0.950	0.991	0.914	0.945	0.879	0.804	0.953
1997	0.992	0.970	0.910	0.926	0.951	0.939	0.939	0.925	0.872	0.906	0.938
1998		0.964	0.974	0.978	0.971	0.949	0.948	0.942	0.997	0.857	0.955
1999		0.966	0.988	0.953	0.934	0.917	0.878	0.833	0.732	0.665	0.917
2000		0.973	0.962	0.958	0.929	0.898	0.872	0.907	0.908	0.858	0.931
2001	0.995	0.998	0.948	0.888	0.908	0.930	0.961	0.945	0.858	0.858	0.936
2002	0.986	0.989	0.993	0.970	0.872	0.946	0.829	0.880	0.851	0.851	0.933
2003	1.000	0.987	0.961	0.994	0.970	0.929	0.883	0.795	0.236	0.236	0.931
2004		0.968	0.950	0.930	0.939	0.884	0.731	0.799	0.909	0.891	0.891
2005	0.973	0.973	0.953	0.947	0.932	0.924	0.881	0.885	0.786	0.767	0.905
2006	0.957	0.957	0.912	0.856	0.896	0.819	0.802	0.842	0.970	0.970	0.914
2007	1.000	0.992	0.934	0.807	0.716	0.821	0.879	0.824	0.812	0.786	0.925
2008	0.975	0.900	0.695	0.632	0.589	0.470	0.424	0.488	0.489	0.489	0.868
2009	0.902	0.902	0.715	0.683	0.552	0.542	0.528	0.416	0.382	0.382	0.566
Average											
83-08		0.969	0.922	0.891	0.852	0.811	0.816	0.819	0.777	0.755	0.873
99-08		0.970	0.930	0.894	0.869	0.854	0.814	0.820	0.755	0.737	0.915

Appendix D. 9. Annual sockeye salmon harvest estimates of wild and enhanced fish in the Canadian fisheries in the Taku River, 1979–2009.

	All harvest				Wild Taku			EnhancedTaku (includes Stikine)		
Year	Commercial	Aborginal	Test	test released	ommercia	Aboriginal	Test	Commercial	Aboriginal	Test
1979	13,578				13,578					
1980	22,602	150			22,602	150				
1981	10,922				10,922					
1982	3,144				3,144					
1983	17,056	0			17,056	0				
1984	27,242	50			27,242	50				
1985	14,244	167			14,244	167				
1986	14,739	200			14,739	200				
1987	13,554	96	237		13,554	96	237			
1988	12,014	245	708		12,014	245	708			
1989	18,545	53	207		18,545	53	207			
1990	21,100	89	285		21,100	89	285			
1991	25,067	150	163		25,067	150	163			
1992	29,472	352	38		29,472	352	38			
1993	33,217	140	166		33,217	140	166			
1994	28,762	239			28,762	239				
1995	32,640	71			31,306	68		1,334	3	0
1996	41,665	360			40,933	354		732	6	0
1997	24,003	349		1	23,346	339		657	10	0
1998	19,038	239			18,449	232		589	7	0
1999	20,681	382	88		20,384	377	87	297	5	1
2000	28,009	140	319		27,573	138	314	436	2	5
2001	47,660	210	247	82	45,792	202	237	1,868	8	10
2002	31,053	155	518	161	31,004	155	517	49	0	1
2003	32,730	267	27	197	32,463	265	27	267	2	0
2004	20,148	120	91		19,882	118	90	266	2	1
2005	21,697	161	244		21,440	159	241	257	2	3
2006	21,099	85	262		20,294	82	252	805	3	10
2007	16,714	159	376		14,987	143	337	1,727	16	39
2008	19,284	215	10	32	17,242	192	9	2,042	23	1
2009	10,980	106	174		10,875	105	172	105	1	2
Averages										
86-00	24,908	195			24,416	191				
99-08	25,908	189	218	118	25,106	183	211	801	6	7

Appendix D. 10. Annual sockeye salmon stock proportions and harvest by stock in the Canadian commercial fishery on the Taku River, 1986–2009.

Data based on scale pattern, brain parasite, and thermal mark analyses.

		King		Little Trapper		Tatsamenic		Stikine	Total	Total
Year	Kuthai	Salmon	Mainstem'	Wild	Enhance	Wild	Enhance	Enhance	Wild	Enhance
1986	0.111		0.350	0.397		0.143			1.000	
1987	0.062		0.649	0.201		0.088			1.000	
1988	0.143		0.343	0.417		0.098			1.000	
1989[a]	0.053		[a]	[a]		0.203			1.000	
1990	0.112		0.338	0.388		0.163			1.000	
1991	0.064		0.452	0.308		0.176			1.000	
1992	0.092		0.569	0.240		0.099			1.000	
1993	0.126		0.432	0.392		0.049			1.000	
1994	0.158		0.302	0.482		0.058			1.000	
1995	0.047		0.373	0.427	0.010	0.112	0.031		0.959	0.041
1996	0.105		0.442	0.221	0.008	0.215	0.010		0.982	0.018
1997	0.120		0.277	0.282	0.019	0.294	0.008		0.973	0.027
1998	0.225		0.254	0.207	0.028	0.283	0.003		0.969	0.031
1999	0.389		0.145	0.305	0.008	0.147	0.006		0.986	0.014
2000	0.172		0.326	0.205	0.000	0.282	0.016		0.984	0.016
2001	0.184		0.364	0.168	0.000	0.246	0.039		0.961	0.039
2002	0.316		0.192	0.428	0.000	0.062	0.002		0.998	0.002
2003	0.231	0.023	0.271	0.378	0.000	0.089	0.008		0.992	0.008
2004	0.168	0.071	0.586	0.132	0.000	0.031	0.013		0.987	0.013
2005	0.098	0.038	0.505	0.204	0.000	0.143	0.012		0.988	0.012
2006	0.055	0.028	0.474	0.176	0.000	0.229	0.038		0.962	0.038
2007	0.102	0.000	0.524	0.101	0.000	0.170	0.096	0.007	0.897	0.103
2008	0.308	0.007	0.222	0.058	0.000	0.299	0.099	0.007	0.894	0.106
2009	0.155	0.000	0.276	0.414	0.000	0.145	0.007	0.002	0.990	0.010
Averages[b]										
86-09	0.150		0.381	0.278		0.160			0.980	
00-09	0.202	0.028	0.361	0.216	0.001	0.170	0.033	0.007	0.965	0.035
1986	1,629		5,152	5,855		2,103			14,739	
1987	834		8,793	2,728		1,199			13,554	
1988	1,715		4,122	5,005		1,172			12,014	
1989[a]	990					3,763			18,545	
1990	2,355		7,131	8,183		3,431			21,100	
1991	1,601		11,327	7,721		4,418			25,067	
1992	2,699		16,764	7,085		2,924			29,472	
1993	4,192		14,347	13,036		1,641			33,217	
1994	4,544		8,684	13,858		1,676			28,762	0
1995	1,528		12,185	13,934	331	3,659	1,003		31,306	1,334
1996	4,357		18,422	9,195	331	8,959	401		40,933	732
1997	2,891		6,637	6,758	456	7,060	201		23,346	657
1998	4,279		4,829	3,944	533	5,397	56		18,449	589
1999	8,044		2,992	6,314	171	3,034	126		20,384	297
2000	4,809		9,122	5,745	0	7,897	436		27,573	436
2001	8,748		17,330	8,005	0	11,709	1,868		45,792	1,868
2002	9,826		5,948	13,305	0	1,925	49		31,004	49
2003	7,568	755	8,855	12,383	0	2,902	267		32,463	267
2004	3,381	1,430	11,799	2,653	0	620	266		19,882	266
2005	2,120	829	10,950	4,433	0	3,108	257		21,440	257
2006	1,168	589	9,993	3,704	0	4,840	805		20,294	805
2007	1,697	0	8,759	1,694	0	2,838	1,602	125	14,987	1,727
2008	5,949	139	4,276	1,114	0	5,763	1,905	137	17,242	2,042
2009	1,703	0	3,035	4,549	0	1,588	80	25	10,875	105
Averages[b]										
86-08	3,906		9,474	7,121		4,013			24,683	755
99-08	5,331		9,002	5,935	17	4,464	758	131	25,106	801

[a] The Trapper and Mainstem groups were combined in the 1989 analysis.

[b] Averages do not include 1989.

Appendix D. 11. Annual sockeye salmon weir counts, escapements, and samples at the Tatsamenie weir, 1984–2009.

Otolith samples are a proportion of the broodstock samples.

					Broodstock					
	Weir	Actual	Escapement			otolith samples				
Year	Count	Spawners	wild	enhanced	Total	All sample	wild	enhanced	wild	enhanced
1984										
1985[a]										
1986										
1987[a]		25								
1988										
1989										
1990										
1991										
1992										
1993										
1994										
1995	5,780	4,387			1,393					
1996	10,381	8,026			2,355					
1997	8,363	5,981			2,382					
1998	5,997	4,735	5,861	136	1,262	398	389	9	1,233	29
1999	2,104	1,888	2,067	37	216	170	167	3	212	4
2000	7,575	5,570	6,575	1,000	2,005	394	342	52	1,740	265
2001	22,575	19,579	18,822	3,753	2,996	403	336	67	2,498	498
2002	**5,495**	**4,379**	4,836	659	1,116	392	345	47	982	134
2003	4,515	2,965	3,175	1,340	1,550	364	256	108	1,090	460
2004	1,951	1,357	1,552	399	594	347	276	71	472	122
2005	3,372	2,445	2,703	669	927	388	311	77	743	184
2006	22,475	19,820	19,984	2,491	2,655	415	369	46	2,361	294
2007	11,187	8,384	7,999	3,188	2,803	386	276	110	2,004	799
2008	8,976	6,176	4,809	4,167	2,800	392	210	182	1,500	1,300
2009	2,032	1,292	1,679	353	740	397	328	69	611	129
Averages										
99-08	9,023	7,256	7,252	1,770	1,766	365	289	76	1,360	406

[a] Weir count plus spawning ground survey; Trapper 1983, 1985, 1987

Minimum estimates of run size and incomplete counts are bold.

Appendix D. 12. Annual sockeye salmon weir counts, escapements, and samples at the Little Trapper weir, 1983–2009.

Broodstock estimate is based on commercial ratio with tats weir dat

			Broodstock		
	Weir	Actual	Broodstock	Trapper esc	
Year	Count	Spawners	Total	wild	enhanced
1983[a]	7,402	7,402	0		
1984	13,084	13,084	0		
1985[a]	14,889	14,889	0		
1986	13,820	13,820	0		
1987[a]	12,007	12,007	0		
1988	10,637	10,637	0		
1989	9,606	9,606	0		
1990	9,443	7,777	1,666		
1991	22,942	21,001	1,941		
1992	14,372	12,732	1,640		
1993	17,432	16,685	747		
1994	13,438	12,691	747		
1995	11,524	11,524	0		
1996	5,483	5,483	0		
1997	5,924	5,924	0		
1998	8,717	8,717	0		
1999	11,805	11,805	0		
2000	11,551	11,551	0		
2001	16,860	16,860	0		
2002	**7,973**	**7,973**	0		
2003	31,227	31,227	0		
2004	9,613	9,613	0		
2005	16,009	16,009	0		
2006	25,265	24,557	708		
2007	7,153	6,340	813	6,340	0
2008	3,831	2,791	1,040	2,791	0
2009	5,552	5,443	109	5,443	0
Averages					
83-08	12,770	12,412			
99-08	14,129	13,873			

Appendix D. 13.. Taku River sockeye salmon run size, 1984–2009.

Run estimate does not include spawning escapements below the U.S./Canada border.

The early season sockeye expansion is based on the proportion of fish wheel sockeye catch that occurs before the fishery opens.

	Above Border M-R				Expanded					Total
	Run	Start	Expansion		Above Border	Canadian		U.S.	Terminal	Exploitation
Year	Estimate	Date	Method	Factor	Run Estimate	harvest	Escape.	Harvest	Run	Rate
1984	133,414	17-Jun	Ave.(88-90&95-96) FW CPUE	0.056	141,254	27,292	113,962	57,619	198,873	43%
1985	118,160	16-Jun	Ave.(88-90&95-96) FW CPUE	0.047	123,974	14,411	109,563	74,287	198,261	45%
1986	104,162	22-Jun	Ave.(88-90&95-96) FW CPUE	0.095	115,045	14,939	100,106	60,644	175,689	43%
1987	87,554	21-Jun	Ave.(88-90&95-96) FW CPUE	0.088	96,023	13,887	82,136	54,963	150,986	46%
1988	86,629	19-Jun	1988 FW CPUE	0.065	92,641	12,967	79,674	25,785	118,427	33%
1989	99,467	18-Jun	1989 FW CPUE	0.128	114,068	18,805	95,263	63,366	177,434	46%
1990	117,385	10-Jun	1990 CPUE	0.002	117,573	21,474	96,099	109,285	226,858	58%
1991	153,773	9-Jun	Ave.(88-90&95-96) FW CPUE	0.007	154,873	25,380	129,493	105,271	260,143	50%
1992	162,003	21-Jun	Ave.(88-90&95-96) FW CPUE	0.032	167,376	29,862	137,514	121,176	288,551	52%
1993	138,523	13-Jun	Ave.(88-90&95-96) FW CPUE	0.026	142,148	33,523	108,625	142,089	284,236	62%
1994	129,119	12-Jun	Ave.(88-90&95-96) FW CPUE	0.019	131,580	29,001	102,579	98,063	229,642	55%
1995	145,264	11-Jun	1995 FW CPUE	0.008	146,450	32,711	113,739	91,984	238,434	52%
1996	132,322	9-Jun	1996 FW CPUE	0.017	134,651	42,025	92,626	187,727	322,379	71%
1997	93,816	3-May	1997 FW CPUE	0.017	95,438	24,352	71,086	79,127	174,565	59%
1998	89,992	2-May	No Expansion		89,992	19,277	70,715	49,832	139,824	49%
1999	113,706	14-May	No Expansion		113,706	21,151	92,555	63,058	176,764	48%
2000	115,693	14-May	No Expansion		115,693	28,468	87,225	131,262	246,954	65%
2001	192,245	27-May	No Expansion		192,245	48,117	144,128	204,433	396,678	64%
2002	135,233	19-May	No Expansion		135,233	31,726	103,507	116,401	251,634	59%
2003	193,390	20-May	No Expansion		193,390	33,024	160,366	135,494	328,884	51%
2004	127,047	12-May	No Expansion		127,047	20,359	106,688	77,012	204,059	48%
2005	142,155	5-May	No Expansion		142,155	22,102	120,053	46,090	188,245	36%
2006	167,597	20-May	No Expansion		167,597	21,446	146,151	65,828	233,425	37%
2007	104,815	19-May	FW CPUE	0.002	105,012	17,249	87,763	65,129	170,141	48%
2008	84,073	17-May	FW CPUE after week 34	0.040	87,568	19,509	68,059	75,692	163,260	58%
2009	83,028	12-May	FW CPUE after week 34	0.001	83,097	11,260	71,837	36,380	119,477	40%
Averages										
84-08	126,701	30-May		0.040	129,709	24,922	104,787	92,065	221,774	51%
99-08	137,595	16-May		0.021	137,965	26,315	111,649	98,040	236,004	51%

Appendix D. 14. The terminal run reconstruction of Taku wild and enhanced sockeye salmon, 1984–2009.

	Wild Total Run				Enhanced Total Run			
Year	Canadian harvest	Escape	US harvest	Terminal Run	Canadian harvest	Escape	US harvest	Terminal Run
1984	27,292	113,962	58,543	199,796				
1985	14,411	109,563	73,809	197,783				
1986	14,939	100,106	60,934	175,980				
1987	13,887	82,136	54,124	150,148				
1988	12,967	79,674	25,811	118,452				
1989	18,805	95,263	62,828	176,895				
1990	21,474	96,099	108,499	226,072				
1991	25,380	129,493	103,412	258,285				
1992	29,862	137,514	122,438	289,814				
1993	33,523	108,625	141,038	283,186				
1994	29,001	102,579	97,046	228,626				
1995	31,374	113,739	87,878	232,991	1,337	0	4,106	5,443
1996	41,287	92,626	182,944	316,858	738	0	4,783	5,521
1997	23,685	71,086	77,067	171,838	667	0	2,060	2,727
1998	18,681	70,579	48,989	138,249	596	136	843	1,575
1999	20,847	92,518	62,441	175,806	304	37	617	958
2000	28,025	86,225	129,683	243,933	443	1,000	1,579	3,022
2001	46,231	140,375	195,496	382,101	1,886	3,753	8,938	14,577
2002	31,676	102,848	115,748	250,272	50	659	653	1,362
2003	32,755	159,026	134,717	326,498	269	1,340	777	2,386
2004	20,090	106,289	76,321	202,700	269	399	692	1,360
2005	21,840	119,384	45,497	186,721	262	669	593	1,524
2006	20,628	143,660	63,587	227,875	818	2,491	2,241	5,550
2007	15,467	84,575	61,387	161,428	1,782	3,188	3,742	8,713
2008	17,443	63,892	63,905	145,240	2,066	4,167	11,787	18,020
2009	11,152	71,484	35,984	118,620	108	353	248	709
Averages								
84-08	24,463	104,073	90,166	218,702				
99-08	25,500	109,879	94,878	230,257	815	1,770	3,162	5,747

Appendix D. 15. Annual sockeye salmon escapement estimates of Taku River and Port Snettisham sockeye stocks, 1979–2009.

Spawners equals escapement to the weir minus fish collected for brood stock.

	Little Trapper		Little Tatsamenie		Tatsamenie		King Salmon	Kuthai Lake	Nahlin River	Crescent Lake		Speel Lake	
Year	Count	Escape.	Count	Escape.	Count	Escape.	Weir	Weir	Weir	Count	Escape.	Count	Escape.
1980								1,658					
1981								2,299					
1982													
1983[a]	7,402	7,402								19,422	19,422	10,484	10,484
1984	13,084	13,084								6,707	6,707	9,764	9,764
1985[a]	14,889	14,889	13,093	13,093						7,249	7,249	7,073	7,006
1986	13,820	13,820	11,446	11,446						3,414	3,414	5,857	5,457
1987[a]	12,007	12,007	2,794	2,794		25				7,839	7,839	9,319	9,319
1988	10,637	10,637	2,063	2,063					**138**	**1,199**	1,199	969	710
1989	9,606	9,606	3,039	3,039						**1,109**	775	12,229	10,114
1990	9,443	7,777	5,736	4,929					2,515	**1,262**	757	**18,064**	16,867
1991	22,942	21,001	8,381	7,585						**9,208**	8,666	299	299
1992	14,372	12,732	6,576	5,681				**1,457**	**297**	**22,674**	21,849	9,439	8,136
1993	17,432	16,685	5,028	4,230				**6,312**	2,463				
1994	13,438	12,691	4,371	3,578				5,427	960				
1995	11,524	11,524			5,780	4,387		3,310	3,711			**16,208**	14,260
1996	5,483	5,483			10,381	8,026		4,243	2,538			20,000	18,610
1997	5,924	5,924			8,363	5,981		5,746	1,857			**4,999**	
1998	8,717	8,717			5,997	4,735		1,934	345			**13,358**	
1999	11,805	11,805			2,104	1,888		10,042				**10,277**	
2000	11,551	11,551			7,575	5,570		4,096				**6,764**	
2001	16,860	16,860			22,575	19,579		1,663	935			**8,060**	
2002	**7,973**	**7,973**			**5,495**	**4,379**		7,697				**5,016**	
2003	31,227	31,227			4,515	2,965		7,769				**7,014**	
2004	9,613	9,613			1,951	1,357	5,005	1,578		na	na	**7,813**	
2005	16,009	16,009			3,372	2,445	1,046	6,004		na	na	**7,538**	
2006	25,670	25,670			22,475	19,820	2,177	1,015		na	na	**4,163**	
2007	7,153	6,340			11,187	8,384	5	204		na	na	**3,099**	
2008	3,831	2,791			8,976	6,176	888	1,547		na	na	**1,763**	
2009	5,552	5,443			2,032	1,292	55	1,442		na	na	3,689	3,689
Averages													
83-08	12,785	12,455										8,315	
99-08	14,169	13,984			9,023	7,256	1,824	4,162	935			6,151	

Appendix D. 16. US fisheries of Taku coho harvest —should be D11, 1979–2009.

	Gillnet		Sport Fish		PU	All Total	
Year	Total	SE	Total	SE	Total	Total	SE
1992	74,226	23,030	431	380	88	74,745	30,776
1993	32,456	8,515	3,222	3,048	25	35,703	24,687
1994	82,181	14,117	19,018	8,674	93	101,292	36,733
1995	51,286	7,263	7,857	2,920	97	59,240	12,179
1996	14,491	2,762	2,461	1,162	67	17,019	9,553
1997	1,489	412	4,963	1,674	27	6,479	2,691
1998	12,972	2,015	3,984	1,084	86	17,042	7,435
1999	5,572	913	3,393	997	44	9,009	5,958
2000	7,352	1,355	4,137	1,148	31	11,520	3,327
2001	9,212	1,523	2,505	813	22	11,739	4,828
2002	26,981	4,257	6,189	1,346	68	33,238	6,389
2003	19,659	6,937	5,421	1,727	59	25,139	10,271
2004	13,058	2,937	12,720	3,528	120	25,898	12,967
2005	18,011	5,679	3,573	1,830	134	21,718	11,908
2006	32,051	4,020	3,985	1,017	134	36,170	7,812
2007	15,753	2,416	804	488	60	16,617	5,529
2008	23,806	5,028	493	362	91	24,390	12,855
2009	36,757	5,033	5,949	2,445	240	42,946	8,642
Average 99-08	17,146	3,507	4,322	1,326	76	21,544	8,184

Appendix D. 17. Historical coho salmon in the Canadian fisheries in the Taku River, 1979–2009.

	Commercial					
Year	Before SW34	After SW34	Total	Aboriginal	Test	Test released
1979			6,006			
1980			6,405	0		
1981			3,607			
1982			51			
1983			8,390	0		
1984			5,357	15		
1985			1,770	22		
1986			1,783	50		
1987			5,599	113	807	
1988			3,123	98	422	
1989			2,876	146	1,011	
1990			3,207	6	472	
1991			3,415	20	2,004	
1992			4,077	187	1,277	
1993			3,033	8	1,593	
1994			14,531	162		
1995			13,629	109		
1996			5,028	24		39
1997			2,594	96		
1998			5,090	0		
1999			4,416	471	688	
2000			4,395	342	710	
2001			2,568	500	31	2,976
2002			3,082	688	32	3,767
2003			3,168	416	59	4,031
2004	2,387	3,579	5,966	450	3,268	
2005	1,412	3,512	4,924	162	3,173	
2006	4,947	3,620	8,567	300	2,802	
2007	2,229	3,015	5,244	155	2,674	
2008	2,802	1,104	3,906	67	0	1,012
2009	2,379	3,270	5,649	154	3,963	
Averages						
83-08			4,990	177		
99-08			4,624	355	1,344	

Appendix D. 18. Historic Taku River (above border) coho salmon terminal run size, 1987–2009.

The run estimates do not include spawningescapements below the U.S./Canada border. Estimates are expanded if mark-recapture activities terminate prior to run completion.

	Above Border M-R									
	Run	End	Expansion		Expanded	Canadian		U.S.	Total	Total Exploitatio
Year	Estimate	Date	Method	Factor	Estimate	Harvest	Escape.	Harvest	Run	Rate
1987	43,750	20-Sep	Test Fish CPUE	1.42	61,976	6,519	55,457			
1988	43,093	18-Sep		1.00	43,093	3,643	39,450			
1989	60,841	1-Oct		1.00	60,841	4,033	56,808			
1990	75,881			1.00	75,881	3,685	72,196			
1991	132,923			1.00	132,923	5,439	127,484			
1992	49,928	5-Sep	District 111-32 CPUE	1.79	89,269	5,541	83,728	74,745	164,014	0.490
1993	67,448	11-Sep	District 111-32 CPUE	1.84	123,965	4,634	119,331	35,703	159,668	0.253
1994	98,643	24-Sep	District 111-32 CPUE	1.13	111,036	14,693	96,343	101,292	212,328	0.546
1995	61,738	30-Sep	District 111-32 CPUE	1.12	69,448	13,738	55,710	59,240	128,688	0.567
1996	44,172	28-Sep	District 111-32 CPUE	1.12	49,687	5,052	44,635	17,019	66,706	0.331
1997	35,035	27-Sep	District 111-32 CPUE	1.00	35,035	2,690	32,345	6,479	41,514	0.221
1998	49,290	26-Sep	District 111-32 CPUE	1.35	66,472	5,090	61,382	17,042	83,514	0.265
1999	59,052	3-Oct	Troll CPUE	1.12	66,343	5,575	60,768	9,009	75,352	0.194
2000	70,147	2-Oct	no expansion	1.00	70,147	5,447	64,700	11,520	81,667	0.208
2001	107,493	5-Oct	no expansion	1.00	107,493	3,099	104,394	11,739	119,232	0.124
2002	223,162	7-Oct	no expansion	1.00	223,162	3,802	219,360	33,238	256,400	0.144
2003	186,755	8-Oct	no expansion	1.00	186,755	3,643	183,112	25,139	211,894	0.136
2004	139,011	8-Oct	no expansion	1.00	139,011	9,684	129,327	25,898	164,909	0.216
2005	143,817	8-Oct	no expansion	1.00	143,817	8,259	135,558	21,718	165,535	0.181
2006	134,053	8-Oct	no expansion	1.00	134,053	11,669	122,384	36,170	170,223	0.281
2007	82,319	8-Oct	no expansion	1.00	82,319	8,073	74,246	16,617	98,936	0.250
2008	99,199	8-Oct	no expansion	1.00	99,199	3,973	95,226	24,390	123,589	0.229
2009	113,716	8-Oct	no expansion	1.00	113,716	9,766	103,950	42,946	156,662	0.336
Averages										
87-08	91,261	29-Sep		1.13	98,724	6,272	92,452	30,998	136,716	0.273
99-08	124,501	6-Oct		1.01	125,230	6,322	118,908	21,544	146,774	0.196

Appendix D. 19. Escapement counts of Taku River coho salmon. Counts are for age-.1 fish and do not include non larges, 1984–2009.

Because of variability between methods, visibility, observers, and timing, these counts are not an index of run strength.

			Sockeye	Johnson	Fish	Flannigan	Tatsamenic	Hacket	Dudidontu		
	Yehring Creek		Creek	Creek	Creek	Slough	River	River	River	per Nahlin River	
Year	Weir	Aerial	Aerial	Ar/Foot	Aerial	Aerial	Weir	Weir	Aerial	Aerial	Weir
1984		2,900	275	235	700	1,480					
1985		560	740	150	1,000	2,320	**201**	1,031			
1986	2,116[a]	1,200	**174**	70	**53**	**1,095**	**344**	2,723	108	318	
1987	1,627[a]	**565**	**980**	150	250	**2,100**	**173**	1,715	276	165	
1988	1,423	**658**	**585**	500	**1,215**	**1,308**	663[a]	1,260	367	694	1,322
1989	**1,570**	600	400	400	235	1,670	712[a]		115	322	
1990	**2,522**	220	**193**		**425**	**414**	669[a]		25	256	
1991		**475**	**399**	120	**1,378**	**1,348**	1,101		458	**176**	
1992		**1,267**	**594**	654	478	1,288	730				**970[a]**
1993		**250**	130	90	380	70	**88**				**326**
1994		500	60	450	200	50	168				**2,112**
1995		70	230	170	132	421	**62**				
1996		35	28	50	250	278	**21**				
1997		500	10	550	600						
1998		280		300	450						
1999		1,050			400						
2000		450		500	1,800						

Surveys Discontinued

[a] Weir count combined with spawning ground count. Tatsamenic 88-90, Yehring 86-87, Nahlin 92.

Bold--Incomplete count or minial estimates

Appendix D. 20. Historical effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet) commercial drift gillnet fishery, 1960–2009.

Days open are for the entire district and include openings to harvest spawner chinook salmon, 1960-1975.

	D111		D111-32		
Year	Boat Days	Days Open	Boat Days	Days Open	PU
1960		60.00	1,680	60.00	
1961		62.00	2,901	62.00	
1962		52.00	1,568	52.00	
1963		54.00	1,519	51.00	
1964		56.00	1,491	56.00	
1965		63.00	1,332	60.00	
1966		64.00	1,535	58.00	
1967		53.00	1,663	50.00	
1968		60.00	2,420	60.00	
1969	1,518	41.50	1,413	42.00	
1970	2,688	53.00	2,425	53.00	
1971	3,053	55.00	2,849	55.00	
1972	3,103	51.00	2,797	51.00	
1973	3,286	41.00	3,135	41.00	
1974	2,315	29.50	1,741	30.00	
1975	1,084	15.50	986	15.00	
1976	1,914	25.00	1,582	23.00	
1977	2,258	27.00	1,879	27.00	
1978	2,174	26.00	1,738	24.00	
1979	2,269	28.83	2,011	29.00	
1980	4,123	30.92	3,634	31.00	
1981	2,687	30.00	1,740	22.00	
1982	2,433	35.50	2,130	36.00	
1983	1,274	33.00	1,065	31.00	
1984	2,757	52.50	2,120	39.00	
1985	3,264	48.00	2,116	37.00	54
1986	2,129	32.83	1,413	30.00	
1987	2,514	34.75	1,517	30.00	
1988	2,135	32.00	1,213	29.00	
1989	2,333	41.00	1,909	36.00	75
1990	3,188	38.33	2,879	38.00	95
1991	4,145	57.00	3,324	52.00	88
1992	4,550	50.00	3,407	43.00	125
1993	3,827	43.00	3,372	43.00	128
1994	5,078	66.00	3,960	60.00	116
1995	4,034	49.00	3,061	45.00	106
1996	3,229	46.00	2,685	41.00	130
1997	2,107	33.00	1,761	30.00	123
1998	3,070	48.00	2,007	39.00	130
1999	2,841	59.00	2,563	58.00	147
2000	2,919	40.00	2,325	38.00	128
2001	4,731	54.00	3,635	55.00	163
2002	4,095	62.00	2,792	54.00	136
2003	3,977	73.50	2,685	64.50	133
2004	3,342	59.00	1,627	50.00	131
2005	3,427	68.00	2,947	65.00	132
2006	3,517	89.00	2,470	81.00	105
2007	3,505	64.00	2,941	64.00	91
2008	3,116	49.00	2,223	46.00	125
2009	3,438	62.00	2,524	57.00	120
Averages					
60-08	3,000	48	2,249	45	
99-08	3,547	62	2,621	58	129

Appendix D. 21. Historical effort in the Canadian commercial fishery in the Taku River, 1979–2009.

	Commercial	
Year	Boat Days	Days Open
1979	599	50
1980	476	39
1981	243	31
1982	38	13
1983	390	64
1984	288	30
1985	178	16
1986	148	17
1987	280	26
1988	185	15
1989	271	25
1990	295	28
1991	284	25
1992	291	27
1993	363	34
1994	497	74
1995	428	51
1996	415	65
1997	394	47
1998	299	42
1999	300	34
2000	351	39
2001	382	42
2002	286	33
2003	275	44
2004	294	40
2005	561	68
2006	518	77
2007	313	55
2008	245	33
2009	459	98
Averages		
79-08	330	39
99-08	352	46

Appendix D. 22. Canyon Island fish wheel salmon counts and periods of operation on the Taku River, 1984–2009.

Total counts from both fishwheels and suppentmental gillnets when water is low

		Catch							
	Period of						Pink		
Year	Operation	Chinook	Sockeye	Coho	Pink	Chum	even year	odd year	Steelhead
1984	6/15-9/18	138	2,334	889	20,751	316	20,751		
1985	6/16-9/21	184	3,601	1,207	27,670	1,376		27,670	
1986	6/14-8/25	571	5,808	758	7,256	80	7,256		
1987	6/15-9/20	285	4,307	2,240	42,786	1,533		42,786	34
1988	5/11-9/19	1,436	3,292	2,168	3,982	1,089	3,982		34
1989	5/05-10/01	1,811	5,650	2,243	31,189	645		31,189	38
1990	5/03-9/23	1,972	6,091	1,860	13,358	748	13,358		43
1991	6/08-10/15	680	5,102	4,922	23,553	1,063		23,553	138
1992	6/20-9/24	212	6,279	2,103	9,252	189	9,252		22
1993	6/12-9/29	562	8,975	2,552	1,625	345		1,625	16
1994	6/10-9/21	906	6,485	4,792	27,100	367	27,100		107
1995	5/4-9/27	1,535	6,228	2,535	1,712	218		1,712	61
1996	5/3-9/20	1,904	5,919	1,895	21,583	388	21,583		68
1997	5/3-10/1	1,321	5,708	1,665	4,962	485		4,962	103
1998	5/2-9/15	894	4,230	1,777	23,347	179	23,347		119
1999	5/3-10/3	440	4,636	1,848	23,503	164		23,503	119
2000	4/23-10/3	1,211	5,865	1,877	6,529	423	6,529		160
2001	4/23-10/5	1,262	6,201	2,380	9,134	250		9,134	125
2002	4/24-10/7	1,578	5,812	3,766	5,672	205	5,672		87
2003	4/20-10/08	1,351	5,970	3,002	15,492	268		15,492	93
2004	4/30-10/06	2,234	6,255	3,163	8,464	414	8,464		63
2005	4/25-10/05	517	3,953	1,476	15,839	258		15,839	79
2006	4/27-10/03	544	5,296	2,811	21,725	466	21,725		47
2007	4/27-10/01	430	7,698	2,117	12,405	482		12,405	57
2008	4/23-10/03	1,298	3,736	2,213	4,704	350	4,704		
2009	4/24-9/27	688	3,489	3,051	9,234	231		9,225	52
Averages									
84-08		1,011	5,417	2,330	15,344	492	13,363	17,489	77
99-08		1,087	5,542	2,465	12,347	328	9,419	15,275	92

Appendix E. 1. Weekly salmon harvest and effort in the lower Alsek River fisheries, 2009.

							Effort	
Week	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
	No Test fishery in 2009							
Commercial Fishery								
24	216	1,091	0	0	0	14	1.0	14.0
25	132	348	0	0	0	14	1.0	14.0
26	200	2,210	0	0	0	12	2.0	24.0
27	47	3,628	0	0	0	14	2.0	28.0
28	5	2,058	0	0	0	12	1.0	12.0
29	1	1,041	0	0	0	13	1.0	13.0
30	1	1,503	0	0	0	7	2.0	14.0
31-34	1	961	6	0	0	7	10.0	15.0
35	0	9	24	0	1	2	3.0	6.0
36	0	24	358	0	0	5	3.0	15.0
37	0	30	1,538	0	15	5	3.0	15.0
38	0	3	905	0	2	3	3.0	9.0
39	0	0	380	0	1	4	3.0	12.0
40	0	0	235	0	1	3	3.0	9.0
41							3.0	
42							3.0	
Total	603	12,906	3,446	0	20		44	200

Appendix E. 2. Weekly salmon harvest and effort in the Canadian Aboriginal and sport fisheries in the Alsek River, 2009.

	Chinook				Sockeye				Coho			
		Recreational				Recreational				Recreational		
Week	Aboriginal[b]	Kept[a]	Released[a]	Total[b]	Aboriginal[b]	Kept	Released	Total[b]	Aboriginal[b]	Kept	Released	Total[b]
24		0	0	0		0	0	0		0	0	0
25		0	0	0		0	0	0		0	0	0
26		0	0	0		0	0	0		0	0	0
27		0	0	0		0	0	0		0	0	0
28	Weekly	2	0	2	Weekly	0	0	0	Weekly	0	0	0
29	Data	7	25	7	Data	0	7	0	Data	0	0	0
30	Not	12	87	12	Not	0	28	0	Not	0	0	0
31	Available	0	0	0	Available	0	0	0	Available	0	0	0
32		0	0	0		0	0	0		0	0	0
33		0	0	0		0	0	0		0	0	0
34		0	0	0		0	0	0		0	0	0
35		0	0	0		0	0	0		0	0	0
36		0	0	0		0	0	0		0	0	0
37		0	0	0		2	0	2		0	0	0
38		0	0	0		0	0	0		0	0	0
39		0	0	0		0	0	0		0	0	0
40		0	0	0		0	0	0		0	0	0
41		0	0	0		0	0	0		0	0	0
42		0	0	0		0	0	0		0	0	0
43		0	0	0		0	0	0		0	0	0
44		0	0	0		0	0	0		0	0	0
45		0	0	0		0	0	0		0	0	0
46		0	0	0		0	0	0		0	0	0
Total	105	20	112	125	715	2	35	717	3	0	0	3
Village Cre	NA				NA				NA			
Harvest at	1				75				3			
Food fish a	52				128				0			

[a] Includes estimates of sport catch (kept and released) in Takhanne and Blanchard rivers; estimates based on salmon catch card information.

[b] Does not include released recreational or aboriginal fish.

Appendix E. 3. Daily counts of salmon passing through Klukshu River weir, 2009.

	Chinook			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
Date	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
10-Jun		0	0.000		0	0.000		0	0.000
11-Jun		0	0.000		0	0.000		0	0.000
12-Jun		0	0.000		0	0.000		0	0.000
13-Jun		0	0.000		0	0.000		0	0.000
14-Jun		0	0.000		0	0.000		0	0.000
15-Jun		0	0.000		0	0.000		0	0.000
16-Jun		0	0.000		0	0.000		0	0.000
17-Jun		0	0.000		0	0.000		0	0.000
18-Jun		0	0.000		0	0.000		0	0.000
19-Jun		0	0.000		0	0.000		0	0.000
20-Jun		0	0.000		0	0.000		0	0.000
21-Jun		0	0.000		0	0.000		0	0.000
22-Jun		0	0.000		0	0.000		0	0.000
23-Jun		0	0.000		0	0.000		0	0.000
24-Jun		0	0.000		0	0.000		0	0.000
25-Jun		0	0.000		0	0.000		0	0.000
26-Jun	0	0	0.000	0	0	0.000	0	0	0.000
27-Jun	0	0	0.000	0	0	0.000	0	0	0.000
28-Jun	0	0	0.000	0	0	0.000	0	0	0.000
29-Jun	0	0	0.000	0	0	0.000	0	0	0.000
30-Jun	1	1	0.001	0	0	0.000	0	0	0.000
1-Jul	1	2	0.001	0	0	0.000	0	0	0.000
2-Jul	1	3	0.002	2	2	0.000	0	0	0.000
3-Jul	0	3	0.002	0	2	0.000	0	0	0.000
4-Jul	1	4	0.003	0	2	0.000	0	0	0.000
5-Jul	1	5	0.003	9	11	0.002	0	0	0.000
6-Jul	1	6	0.004	4	15	0.003	0	0	0.000
7-Jul	2	8	0.005	12	27	0.005	0	0	0.000
8-Jul	1	9	0.006	6	33	0.006	0	0	0.000
9-Jul	7	16	0.010	6	39	0.007	0	0	0.000
10-Jul	6	22	0.014	5	44	0.008	0	0	0.000
11-Jul	5	27	0.017	4	48	0.008	0	0	0.000
12-Jul	10	37	0.024	6	54	0.009	0	0	0.000
13-Jul	9	46	0.029	1	55	0.010	0	0	0.000
14-Jul	12	58	0.037	5	60	0.011	0	0	0.000
15-Jul	31	89	0.057	4	64	0.011	0	0	0.000
16-Jul	29	118	0.075	6	70	0.012	0	0	0.000
17-Jul	35	153	0.097	7	77	0.013	0	0	0.000
18-Jul	93	246	0.157	14	91	0.016	0	0	0.000
19-Jul	223	469	0.299	29	120	0.021	0	0	0.000
20-Jul	35	504	0.321	2	122	0.021	0	0	0.000
21-Jul	119	623	0.397	82	204	0.036	0	0	0.000
22-Jul	29	652	0.415	98	302	0.053	0	0	0.000
23-Jul	35	687	0.437	4	306	0.054	0	0	0.000
24-Jul	243	930	0.592	38	344	0.060	0	0	0.000
25-Jul	50	980	0.624	19	363	0.064	0	0	0.000
26-Jul	118	1,098	0.699	113	476	0.083	0	0	0.000
27-Jul	74	1,172	0.746	156	632	0.111	0	0	0.000
28-Jul	45	1,217	0.775	64	696	0.122	0	0	0.000
29-Jul	47	1,264	0.805	60	756	0.132	0	0	0.000
30-Jul	26	1,290	0.821	37	793	0.139	0	0	0.000
31-Jul	149	1,439	0.916	212	1,005	0.176	0	0	0.000
1-Aug	18	1,457	0.927	24	1,029	0.180	0	0	0.000
2-Aug	13	1,470	0.936	26	1,055	0.185	0	0	0.000
3-Aug	8	1,478	0.941	15	1,070	0.187	0	0	0.000
4-Aug	3	1,481	0.943	10	1,080	0.189	0	0	0.000
5-Aug	11	1,492	0.950	43	1,123	0.197	0	0	0.000
6-Aug	9	1,501	0.955	16	1,139	0.199	0	0	0.000
7-Aug	5	1,506	0.959	44	1,183	0.207	0	0	0.000
8-Aug	3	1,509	0.961	11	1,194	0.209	0	0	0.000
9-Aug	6	1,515	0.964	10	1,204	0.211	0	0	0.000

- Continued -

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	Chinook			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
Date	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
10-Aug	7	1,522	0.969	24	1,228	0.215	0	0	0.000
11-Aug	14	1,536	0.978	12	1,240	0.217	0	0	0.000
12-Aug	5	1,541	0.981	0	1,240	0.217	0	0	0.000
13-Aug	4	1,545	0.983	3	1,243	0.218	0	0	0.000
14-Aug	4	1,549	0.986	2	1,245	0.218	0	0	0.000
15-Aug	9	1,558	0.992	2	1,247	0.218	0	0	0.000
16-Aug	2	1,560	0.993	69	1,316	0.230	0	0	0.000
17-Aug	0	1,560	0.993	94	1,410	0.247	0	0	0.000
18-Aug	6	1,566	0.997	289	1,699	0.297	0	0	0.000
19-Aug	1	1,567	0.997	21	1,720	0.301	0	0	0.000
20-Aug	0	1,567	0.997	57	1,777	0.311	0	0	0.000
21-Aug	1	1,568	0.998	523	2,300	0.403	0	0	0.000
22-Aug	0	1,568	0.998	44	2,344	0.410	0	0	0.000
23-Aug	0	1,568	0.998	16	2,360	0.413	0	0	0.000
24-Aug	0	1,568	0.998	4	2,364	0.414	0	0	0.000
25-Aug	0	1,568	0.998	268	2,632	0.461	0	0	0.000
26-Aug	0	1,568	0.998	19	2,651	0.464	0	0	0.000
27-Aug	0	1,568	0.998	0	2,651	0.464	0	0	0.000
28-Aug	0	1,568	0.998	220	2,871	0.503	0	0	0.000
29-Aug	0	1,568	0.998	65	2,936	0.514	0	0	0.000
30-Aug	0	1,568	0.998	190	3,126	0.547	0	0	0.000
31-Aug	0	1,568	0.998	175	3,301	0.578	0	0	0.000
1-Sep	0	1,568	0.998	170	3,471	0.608	0	0	0.000
2-Sep	0	1,568	0.998	241	3,712	0.650	0	0	0.000
3-Sep	1	1,569	0.999	66	3,778	0.661	0	0	0.000
4-Sep	0	1,569	0.999	48	3,826	0.670	0	0	0.000
5-Sep	0	1,569	0.999	276	4,102	0.718	0	0	0.000
6-Sep	1	1,570	0.999	3	4,105	0.719	0	0	0.000
7-Sep	0	1,570	0.999	47	4,152	0.727	0	0	0.000
8-Sep	0	1,570	0.999	3	4,155	0.727	0	0	0.000
9-Sep	0	1,570	0.999	154	4,309	0.754	0	0	0.000
10-Sep	0	1,570	0.999	125	4,434	0.776	0	0	0.000
11-Sep	0	1,570	0.999	118	4,552	0.797	0	0	0.000
12-Sep	0	1,570	0.999	68	4,620	0.809	0	0	0.000
13-Sep	1	1,571	1.000	31	4,651	0.814	0	0	0.000
14-Sep	0	1,571	1.000	54	4,705	0.824	0	0	0.000
15-Sep	0	1,571	1.000	19	4,724	0.827	0	0	0.000
16-Sep	0	1,571	1.000	57	4,781	0.837	0	0	0.000
17-Sep	0	1,571	1.000	73	4,854	0.850	0	0	0.000
18-Sep	0	1,571	1.000	9	4,863	0.851	0	0	0.000
19-Sep	0	1,571	1.000	22	4,885	0.855	1	1	0.002
20-Sep	0	1,571	1.000	5	4,890	0.856	0	1	0.002
21-Sep	0	1,571	1.000	5	4,895	0.857	1	2	0.005
22-Sep	0	1,571	1.000	22	4,917	0.861	0	2	0.005
23-Sep	0	1,571	1.000	85	5,002	0.876	0	2	0.005
24-Sep	0	1,571	1.000	40	5,042	0.883	7	9	0.021
25-Sep	0	1,571	1.000	22	5,064	0.887	12	21	0.050
26-Sep	0	1,571	1.000	192	5,256	0.920	17	38	0.090
27-Sep	0	1,571	1.000	21	5,277	0.924	7	45	0.106
28-Sep	0	1,571	1.000	23	5,300	0.928	9	54	0.127
29-Sep	0	1,571	1.000	10	5,310	0.930	4	58	0.137
30-Sep	0	1,571	1.000	95	5,405	0.946	36	94	0.222
1-Oct	0	1,571	1.000	307	5,712	1.000	330	424	1.000
2-Oct	0	1,571	1.000		5,712	1.000		424	1.000
3-Oct	0	1,571	1.000		5,712	1.000		424	1.000
4-Oct	0	1,571	1.000		5,712	1.000		424	1.000
5-Oct	0	1,571	1.000		5,712	1.000		424	1.000
6-Oct	0	1,571	1.000		5,712	1.000		424	1.000
7-Oct	0	1,571	1.000		5,712	1.000		424	1.000
Total Count		1,571			5,712			424	
Adjustments		0			0			0	
Harvest at weir		1			75			3	
Harvest above weir		52			128			0	
Total Escapement		1,518			5,509			421	

Appendix E. 4. Salmon harvest and effort in the U.S. Commercial fishery in the Alsek River, 1960 to 2009.

						Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Boat Days	Days Open
1960							
1961	2,120	23,339	7,679	84	86	1,436	80.0
1962							
1963	131	6,055	7,164	42	34	692	68.0
1964	591	14,127	9,760	144	367	592	68.0
1965	719	28,487	9,638	10	72	1,016	72.0
1966	934	29,091	2,688	22	240	500	64.0
1967	225	11,108	10,090	107	30	600	68.0
1968	215	26,918	10,586	82	240	664	68.0
1969	685	29,259	2,493	38	61	807	61.0
1970	1,128	22,654	2,188	6	26	670	52.3
1971	1,222	25,314	4,730	3	120	794	60.5
1972	1,827	18,717	7,296	37	280	640	65.0
1973	1,757	26,523	4,395	26	283	894	52.0
1974	1,162	16,747	7,046	13	107	699	46.0
1975	1,379	13,842	2,230	16	261	738	58.0
1976	512	19,741	4,883	0	368	550	58.5
1977	1,402	40,780	11,817	689	483	882	57.0
1978	2,441	50,580	13,913	59	233	929	57.0
1979	2,525	41,449	6,158	142	263	1,110	51.0
1980	1,382	25,522	7,863	21	1,005	773	42.0
1981	779	23,641	10,232	65	816	588	40.0
1982	532	27,443	6,534	6	358	552	33.0
1983	94	18,293	5,253	20	432	487	38.0
1984	60	14,326	7,868	24	1,610	429	33.0
1985	213	5,792	5,490	3	427	277	33.0
1986	481	24,791	1,344	13	462	517	34.0
1987	347	11,393	2,517	0	1,924	388	40.5
1988	223	6,286	4,986	7	908	324	34.0
1989	228	13,513	5,972	2	1,031	378	38.0
1990	78	17,013	1,437	0	495	374	38.0
1991	103	17,542	5,956	0	105	530	49.0
1992	301	19,298	3,116	1	120	372	46.0
1993	300	20,043	1,215	0	49	372	40.0
1994	805	19,639	4,182	0	32	403	61.0
1995	670	33,112	14,184	13	347	879	53.5
1996	772	15,182	5,514	0	165	419	51.0
1997	568	25,879	11,427	0	34	611	59.0
1998	550	15,007	4,925	1	145	358	41.0
1999	482	11,441	5,660	0	112	319	44.0
2000	677	9,522	5,103	5	130	307	37.0
2001	541	13,995	2,909	8	17	234	50.0
2002	700	16,918	9,525	0	1	270	73.0
2003	937	39,698	47	0	0	271	60.0
2004	656	18,030	2,475	0	2	280	76.5
2005	286	7,572	1,196	0	0	171	41.0
2006	530	9,842	701	2	3	248	45.0
2007	400	19,795	134	0	0	199	47.0
2008	128	2,815	2,668	0	0	177	34.0
2009	602	12,906	3,454	0	20	200	44.0
Averages							
63-08	710	20,103	5,598	35	309	528	50.8
99-08	534	14,963	3,042	2	27	248	50.8

Appendix E. 5. Salmon harvest in the U.S. Chinook salmon test fishery in the Alsek River, 2005–2009.

Year	Chinook	Sockeye
2005	423	222
2006	135	224
2007	347	367
2008	465	55
2009	no test fishery	

Appendix E. 6. Salmon harvest in the U.S. subsistence and personal use fisheries in the Alsek River, 1976–2009.

Year	Chinook	Sockeye	Coho
1976	13	51	5
1977	18	113	0
1978			
1979	80	35	70
1980	57	41	62
1981	32	50	74
1982	87	75	50
1983	31	25	50
1984			
1985	16	95	0
1986	22	241	45
1987	27	173	31
1988	13	148	9
1989	20	131	34
1990	85	144	12
1991	38	104	0
1992	15	37	44
1993	38	96	28
1994	60	47	20
1995	51	167	53
1996	60	67	28
1997	38	273	26
1998	63	158	42
1999	44	152	21
2000	73	146	31
2001	19	72	45
2002	60	232	35
2003	24	176	27
2004	51	224	21
2005	31	63	62
2006	47	272	23
2007	79	298	27
2008	34	200	28
2009	57	245	17
Averages			
76-08	43	132	32
99-08	46	184	32

Appendix E. 7. Salmon harvest in the Canadian Aboriginal and recreational fisheries in the Alsek River, 1976 to 2009.

	Chinook			Sockeye			Coho		
Year	Aboriginal	Rec	Total	Aboriginal	Rec	Total	Aboriginal	Rec	Total
1976	150	200	350	4,000	600	4,600	0	100	100
1977	350	300	650	10,000	500	10,500	0	200	200
1978	350	300	650	8,000	500	8,500	0	200	200
1979	1,300	650	1,950	7,000	750	7,750	0	100	100
1980	150	200	350	800	600	1,400	0	200	200
1981	150	315	465	2,000	808	2,808	0	109	109
1982	400	224	624	5,000	755	5,755	0	109	109
1983	300	312	612	2,550	732	3,282	0	16	16
1984	100	475	575	2,600	289	2,889	0	20	20
1985	175	250	425	1,361	100	1,461	50	100	150
1986	102	165	267	1,914	307	2,221	0	9	9
1987	125	367	492	1,158	383	1,541	0	49	49
1988	43	249	292	1,604	322	1,926	0	192	192
1989	234	272	506	1,851	319	2,170	0	227	227
1990	202	555	757	2,314	392	2,706	0	75	75
1991	509	388	897	2,111	303	2,414	0	227	227
1992	148	103	251	2,592	582	3,174	0	213	213
1993	152	171	323	2,361	329	2,690	0	37	37
1994	289	197	486	1,745	261	2,006	8	69	77
1995	580	1,044	1,624	1,745	682	2,427	83	527	610
1996	448	650	1,098	1,204	157	1,361	56	9	65
1997	232	298	530	484	36	520	5	0	5
1998	171	175	346	567	18	585	72	40	112
1999	238	174	412	554	0	554	0	28	28
2000	65	77	142	745	0	745	51	1	52
2001	120	157	277	1,173	4	1,177	5	94	99
2002	120	197	317	2,194	61	2,255	6	283	289
2003	90	138	228	2,734	61	2,795	0	192	192
2004	139	46	185	1,875	247	2,122	0	127	127
2005	58	56	114	581	13	594	20	51	71
2006	2	17	19	1,321	6	1,327	0	0	0
2007	1	40	41	1,330	10	1,340	1	0	1
2008	0	7	7	0	0	0	26	8	34
2009	105	20	125	715	2	717	3	0	3
Averages									
76-08	227	266	493	2.348	307	2,654	12	109	121
99-08	83	91	174	1,251	40	1,291	11	78	89

Appendix E. 8. Annual Klukshu River weir counts of Chinook, sockeye, and coho salmon, 1976 to 2009.

The escapement count equals the weir count minus the aboriginal fishery harvest above the weir and brood stock taken.Jack Chinook salmon are included in Chinook counts.

	Chinook		Sockeye				Coho a	
Year	Count	Escape [b]	Early [c]	Late	Total	Escape.	Count	Escape [b]
1976	1,278	1,153	181	11,510	11,691	7,941	1,572	
1977	3,144	2,894	8,931	17,860	26,791	15,441	2,758	
1978	2,976	2,676	2,508	24,359	26,867	19,017	30	
1979	4,404	2,454	977	11,334	12,311	7,051	175	
1980	2,637	2,487	1,008	10,742	11,750	10,850	704	
1981	2,113	1,963	997	19,351	20,348	18,448	1,170	
1982	2,369	1,969	7,758	25,941	33,699	28,899	189	
1983	2,537	2,237	6,047	14,445	20,492	18,017	303	
1984	1,672	1,572	2,769	9,958	12,727	10,227	1,402	
1985	1,458	1,283	539	18,081	18,620	17,259	350	
1986	2,709	2,607	416	24,434	24,850	22,936	71	
1987	2,616	2,491	3,269	7,235	10,504	9,346	202	
1988	2,037	1,994	585	8,756	9,341	7,737	2,774	
1989	2,456	2,289	3,400	20,142	23,542	21,636	2,219	
1990	1,915	1,742	1,316	24,679	25,995	24,607	315	
1991	2,489	2,248	1,924	17,053	18,977	17,645	8,540	8,478
1992	1,367	1,242	11,339	8,428	19,767	18,269	1,145	1,145
1993	3,302	3,220	5,369	11,371	16,740	14,921	788	788
1994	3,727	3,628	3,247	11,791	15,038	13,892	1,232	1,232
1995	5,678	5,394	2,289	18,407	20,696	19,817	3,614	3,564
1996	3,599	3,382	1,502	6,818	8,320	7,891	3,465	3,465
1997	2,989	2,829	6,565	4,931	11,496	11,303	307	302
1998	1,364	1,347	597	12,994	13,591	13,580	1,961	1,961
1999	2,193	2,168	371	5,010	5,381	5,101	2,531	2,531
2000	1,365	1,321	237	5,314	5,551	5,422	4,832	4,791
2001	1,825	1,738	908	9,382	10,290	9,329	748	746
2002	2,240	2,134	11,904	13,807	25,711	23,587	9,921	9,921
2003	1,737	1,661	3,084	31,278	34,362	32,120	3,689	3,689
2004	2,525	2,445	3,464	11,884	15,348	13,721	750	750
2005	1,070	963	994	2,379	3,373	3,167	683	663
2006	568	566	247	13,208	13,455	12,890	420	420
2007	677	676	2,725	6,231	8,956	8,310	300	299
2008	466	466	43	2,698	2,741	2,741	4,275	4,249
2009	1,571	1,518	1,247	4,465	5,712	5,509	424	421
Averages								
76-08	2,288	2,098	2,955	13,388	16,343	14,337	1,922	
99-08	1,467	1,414	2,398	10,119	12,517	11,639	2,815	2,806

[a] Weir was removed prior to the end of the coho run.

[b] The chinook and sockeye escapements into Klukshu Lake are calculated from the weir count minus fish harvested above the weir site minus brood stock taken. The remainder of the food fishery harvest occurred below the weir, at Village Creek, and Blanchard and Takhanne Rivers.

[c] Includes sockeye counts up to and including August 15.

Appendix E. 9. Alsek River sockeye salmon escapement 2000 to 2009.

Estimates only for years with data

Year	Inriver Run Estimate	CI Lower	CI Upper	Canadian Harvest	Spawning Escapement	U.S. Harvest	Total Run	Percent Klukshu
2000	37,887	23,410	52,365	745	37,142	9,668	47,555	14.7%
2001	31,164	23,143	39,185	1,177	29,987	14,067	45,231	33.0%
2002	95,427	55,893	134,961	2,255	93,172	17,150	112,577	26.9%
2003	103,507	74,350	132,664	2,795	100,712	39,874	143,381	33.2%
2004	83,703	39,566	127,841	2,122	81,581	18,152	101,855	18.3%
2005	57,817	21,907	93,727	594	57,223	7,635	65,452	5.8%
2006	48,901	41,234	56,569	1,327	47,574	10,114	59,015	27.5%

Appendix E. 10. Alsek River sockeye salmon counts from U.S. and Canadian aerial surveys and from the electronic counter at Village Creek, 1985–2009.

Surveys not made every year at each tributary.

	U.S. Aerial Surveys				Canada Aerial Surveys[a]		
Year	Basin Creek	Cabin Creek	Muddy Creek	Tanis River	Tatshenshin River	Neskatahee Lake	Village Creek Counter
1985	2,600			2,200			
1986	100		300	2,700	536	750	1,490
1987	350	220		1,600			1,875
1988	500			750	433	456	**433**
1989	320			680	1,689	1,700	9,569
1990	275	300		3,500			**5,313**
1991				800			**86**
1992	1,000	10		50			**7,447**
1993	4,800			900			**2,104**
1994	250			600	366		**3,921**
1995	2,700			350			4,042
1996	325			650			1,583
1997	600			350			2,267
1998				130			826
1999	30			800			**NA**
2000	25			180			1,860
2001				700			**1,897**
2002	No surveys flown						2,765
2003	No surveys flown						**2,778**
2004	No surveys flown						**1,968**
2005	No surveys flown						1,408
2006	No surveys flown						979
2007	No surveys flown						10,254
2008	No surveys flown					1,000	NA
2009	No surveys flown					4,500	**887**
Averages							
86-08							3,089
99-08							2,989

[a] Includes several streams from Lo-Fog to Goat Creek.

Bold are incomplete counts

Appendix E. 11. Aerial survey index counts of Alsek River Chinook salmon escapements, 1984 to 2009.

Year	Blanchard River	Takhanne River	Goat Creek
1984	304	158	28
1985	232	184	
1986	556	358	142
1987	624	395	85
1988	437	169	54
1989	[a]	158	34
1990	[a]	325	32
1991	121	86	63
1992	86	77	16
1993	326	351	50
1994	349	342	67
1995	338	260	[b]
1996	132	230	12
1997	109	190	
1998	71	136	39
1999	371	194	51
2000	163	152	33
2001	543	287	21
2002	351	220	86
2003	127	105	10
2004	84	46	no survey
2005	112	47	7
2006	98	28	9
2007	39	32	45
2008	65	41	11
2009	No surveys conducted		
Averages			
84-08	245	183	43

[a] Not surveyed due to poor visibility. 89,90 Blanchard

[b] Late survey date which missed the peak of spawning.

Appendix E. 12. Alsek River run of large Chinook salmon, 1997–2004. Estimates are based on a mark-recapture study and include the percent of Chinook salmon.

Estimates are based on a mark-recapture study and include the percent of Chinook salmon spawning in the Klukshu River; the program was discontinued in 2005.

		CI		U.S. Harvest Dry Bay			Canadian Harvest		
Year	Inriver Run Past Dry Bay	Lower	Upper	Commercial	Subsistence	Total Inriver Run	Aboriginal	Sport	Escapement
1997	15,250	9,081	21,418	568	38	15,856	232	298	14,720
1998	4,967	3,027	9,765	550	63	5,580	171	175	4,621
1999	11,969	8,243	22,035	482	44	12,495	238	174	11,557
2000	8,432	6,805	14,308	677	73	9,182	65	77	8,290
2001	11,246	9,146	14,303	541	19	11,806	120	157	10,969
2002	8,807	8,345	10,790	700	60	9,567	120	197	8,490
2003	5,105	4,302	6,310	937	24	6,066	90	138	4,877
2004	7,565			656	38	8,259	139	46	7,380

Appendix E. 13. Aerial survey counts of coho salmon from U.S. lower Alsek River tributaries, 1985–2000.

Klukshu weir count of large Chinook salmon as a percent of the Alsek escapement of large Chinook salmon

Year	Weir Count All	Weir Count Large	Percent Klukshu
1997	2,989	2,864	19.5%
1998	1,364	1,184	25.6%
1999	2,193	1,663	14.4%
2000	1,365	1,218	14.7%
2001	1,825	1,538	14.0%
2002	2,240	2,067	24.3%
2003	1,737	1,313	26.9%
2004	2,525	2,376	32.2%

Appendix F. 1 Tahltan Lake egg collection, fry plants, and survivals, 1989–2009.

Year	Combined U.S.Tributary Counts	
1985	450	
1986	1,100	
1987	100	
1988	1,900	
1989	1,990	
1990	1,600	
1991	500	[a]
1992	1,010	[a]
1993	800	[a]
1994	975	[a]
1995	1,050	
1996	1,550	
1997	No surveys due to poor weather conditions	
1998	500	
1999	No surveys due to poor weather conditions	
2000	620	

[a] Few systems surveyed.

Appendix F. 2 Tuya Lake fry plants and survivals, 1991–2009.

Number for eggs and fry are millions. Eggs collected from Tahltan broodstock are used for outplants to both Tahltan and Tuya Lakes.

	Egg Take					Survival		Thermal
			Designated	Fry	Percent	Fertilized	Green	Mark
Brood Year	Target	Collected[a]	Tahltan	Planted	Fertilized	Egg to Fry	Egg to Fry	Pattern
1989[a]	3.000	2.955	2.955	1.042	0.704	0.501	0.353	1:1.4
1990	5.000	4.511	4.511	3.585	0.824	0.964	0.795	1:1.3
1991	5.000	4.246	1.514	1.415	0.949	0.984	0.935	1:1.4
1992	5.400	4.901	2.154	1.947	0.919	0.983	0.904	1:1.5+2.3
1993	6.000	6.140	0.969	0.904	0.946	0.986	0.933	1:1.6+2.5N
1994	6.000	4.183	1.418	1.143	0.929	0.868	0.806	1:1.6
1995	6.000	6.891	3.008	2.296	0.906	0.843	0.763	1:1.7
1996	6.000	6.402	3.169	2.313	0.923	0.791	0.730	1:1.6
1997	6.000	3.221	2.700	1.900	0.812	0.867	0.704	2:1.6
1998	6.000	4.022	1.998	1.671	0.911	0.918	0.836	1:1.7
1999	6.000	3.505	2.773	2.228	0.901	0.892	0.803	2:1.6
2000	6.000	2.388	2.388	1.873	0.920	0.853	0.784	1:1.7
2001	6.000	3.306	3.306	2.533	0.829	0.924	0.766	2:1.6
2002	6.000	4.050	2.780	2.623	0.926	1.019	0.944	1:1.7
2003	6.000	5.391	2.661	2.226	0.899	0.931	0.837	1:1.6 & 1:1.5+2.4
2004	6.000	5.701	1.966	1.266	0.803	0.802	0.644	1:1.6+2.6
2005	6.000	4.552	1.809	1.280	0.800	0.884	0.708	1:1.4+2.2
2006	6.000	4.360	2.954	2.466	0.910	0.917	0.835	1:1.3n,2.2
2007	6.000	4.061	2.209	1.540	0.756	0.922	0.697	1,2n,3
2008	6.000	3.159	1.895	1.395	0.848	0.868	0.736	1,4H
Averages								
89-08	5.720	4.397	2.457	1.882	0.871	0.886	0.776	
99-08	6.000	4.047	2.474	1.943	0.859	0.901	0.775	
2009	6.000	4.468	2.000		0.783			

Appendix F. 3 Tatsamenie Lake egg collection, fry plants, and survivals, 1989–2009.

Numbers for eggs and fry are millions

	Egg Take			Survival		Thermal
	Designated	Fry	Percent	Fertilized	Green	Mark
Brood Year	Tuya	Planted	Fertilized	Egg to Fry	Egg to Fry	Pattern
1991	2.732	1.632	0.944	0.633	0.597	1:1.6
1992	2.747	1.990	0.929	0.780	0.724	1:1.7
1993	5.171	4.691	0.911	0.996	0.907	1:1.4+2.5N
1994	2.765	2.267	0.870	0.943	0.820	1:1.4
1995	3.883	2.474	0.795	0.802	0.637	1:1.4+2.4
1996	3.233	2.614	0.932	0.868	0.809	1:1.4
1997	0.521	0.433	0.911	0.912	0.831	2:1.4
1998	2.024	1.603	0.917	0.864	0.792	1:1.4
1999	1.053	0.867	0.960	0.858	0.823	2:1.4
2000[a]	0.000	0.000				
2001[a]	0.000	0.000				
2002	1.271	1.124	0.904	0.978	0.884	1:1.7+2.3
2003	2.730	2.445	0.927	0.966	0.896	1:1.4
2004	3.734	3.201	0.921	0.931	0.857	1:1.6+2.4
2005	2.744	2.138	0.900	0.866	0.779	1:1.4+2.4
2006	1.410	1.201	0.920	0.926	0.852	1:1.3,2.3
2007	1.852	1.537	0.856	0.970	0.830	2,1,3
2008	0.988	0.832	0.854	0.986	0.842	6H
Averages						
91-08	2.159	1.725	0.903	0.892	0.805	
99-08	1.578	1.335	0.905	0.935	0.845	
2009	1.150					

[a] All eggs collected in 2000 and 2001 were for backplant into Tahltan Lake.

Appendix F. 4 Trapper Lake egg collection, fry plants, and survivals, 1990–2009.

	Egg Take					Survival[b]			Last
				Fry	Percent	Fertilized	Green		Date
Brood Year	Target	Collected[a]	Transport	Planted	Fertilized	Egg to Fry	Egg to Fry	Thermal Mark Pattern	Released
1990	2.500	0.985	0.985	0.673	0.775	0.882	0.683	1:1.3	22-Jun
1991	1.500	1.360	1.360	1.232	0.927	0.977	0.906	2:1.4	26-Jun
1992	1.750	1.486	1.486	0.909	0.858	0.713	0.612	1:1.5	14-Jul
1993	2.500	1.144	1.144	0.521	0.619	0.735	0.455	2:1.5	14-Jul
1994	2.500	1.229	1.229	0.898	0.801	0.912	0.731	1:1.5	21-Jul
1995	2.500	2.407	2.407	1.724	0.843	0.850	0.716	1:1.5	25-Jun
1996	5.000	4.934	4.934	3.945	0.849	0.942	0.800	1:1.5&1:1.5,2.3	27-Jun
1997	5.000	4.651	4.651	3.597	0.910	0.850	0.773	2:1&2:1.5,2.3	9-Jul
1998	2.500	2.414	2.414	1.769	0.897	0.817	0.733	1:1.4+2.5&1:1.4+2.3	30-Jun
1999	2.500	0.461	0.461	0.350	0.922	0.824	0.759	2:1.5	4-Jul
2000	3.000	2.816	2.572	2.320	0.943	0.956	0.902	1.1.5+2.3&1.1.5	26-Jun
2001	4.800	4.364	3.499	2.233	0.900	0.709	0.638	2:1.5&2:1.5,2.3	25-Jun
2002	3.000	2.498	2.302	1.353	0.823	0.714	0.588	1:1.4&1:1.4+2.3	27-May
2003	5.000	2.642	2.452	2.141	0.919	0.950	0.873	1.1.5+2.3&1.1.5	27-May
2004	5.000	0.750	0.750	0.628	0.933	0.898	0.837	1:1.4+2.5n&1:1.4+2.3,3.3	20-May
2005	5.000	1.811	1.811	1.471	0.936	0.868	0.813	1:1.4+2.3&1:1.4+2.5	8-Jun
2006	5.000	4.810	4.810	3.705	0.920	0.837	0.770	1:1.2,2.1,3.2&1:1.2,2.2,3.3&1:1.2,2.2,3.1	13-Jun
2007	5.000	3.673	3.673	2.122	0.885	0.653	0.578	2n3&2,3n,1&1,3n,2&3,2n,1	6-Jun
2008	5.000	4.902	4.373	3.873	0.892	0.993	0.886	3,2H & 3,3H	3-Jun
Averages									
90-08	3.634	2.597	2.490	1.867	0.871	0.846	0.740		21-Jun
99-08	4.330	2.873	2.670	2.020	0.907	0.840	0.764		9-Jun
2009	4.000	1.220							

Multiple Release Treatments

	Treatment 1				Treatment 2			
				Last				Last
Brood			Number	Date			Number	Date
Year	Mark	Treatment	Released	Released	Mark	Treatment	Released	Released
1996	1:1.5	onshore	3.441	27-Jun	1:1.5,2.3	onshore	0.500	27-Jun
1997	2:1.5	onshore	3.202	29-Jun	2:1.5,2.3	fed at lake	0.394	9-Jul
1998	1:1.4+2.5	unfed	0.751	9-Jun	1:1.4+2.3	fed at lake	1.018	30-Jun
1999	2:1.5	fed at lake	0.350	4-Jul				
2000	1.1.5+2.3	fed early	1.265	15-Jun	1.1.5	fed late	1.054	26-Jun
2001	2:1.5	unfed early	0.727	30-May	2:1.5,2.3	fed	1.432	25-Jun
2002	1:1.4	direct release early	0.911	27-May	1:1.4+2.3	fed - IHN loss	0.000	none
2003	1.1.5+2.3	unfed early south	1.005	27-May	1.1.5	unfed early north	1.136	24-May
2004	1:1.4+2.5	unfed early south	0.367	20-May	1:1.4+2/3,3.3	unfed early north	0.261	20-May
2005	1:1.4+2.3	unfed early south	0.775	8-Jun	1:1.4+2.5	unfed early north	0.696	8-Jun
2006	1:1.2,2.1,3	unfed early south	1.808	7-Jun	1:1.2,2.2,3.31.2,2.2,3.1	unfed early north	1.897	13,7-Jun
2007	1,3n,2	unfed early midlake	0.971	6-Jun	2n3 2,3n1	unfed early north	1.150	5-Jun
2007	3,2n,1	extended rearing[c]	0.400	8-Jun				
2008	3,3H	extended rearing	0.115			lake rear		
Averages								
98-08			0.787				0.960	
2009								

[a] Eggs not transported but placed in inlake incubator; 2000 = 244,000, 2001 = 865,000, 2002 196,000, 2003 = 190,000.

[b] Survival rates are for hatchery eggs and hatchery fry plants and do not inlcude the lake incubators.

[c] All died to IHNV